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Predictors and Influences of Graduation Rates in Mississippi Public Schools

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A Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

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ABSTRACT

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The purpose of this study was to examine if possible predictors of graduation rates in Mississippi existed. This study included 10 independent variables and one dependent variable. The independent variables consisted of average daily attendance, algebra I scores, teacher salary, socioeconomic status (as expressed in the percentage of students eligible for free and reduced lunch within a school), eighth grade math MCT scores, eighth grade language MCT scores, the number of teachers with advanced degrees, the school's outcome of Adequate Yearly Progress, school size, and principal leadership style. The dependent variable was graduation rate.

A total of 100 schools were included in the analysis of the first nine independent variables. Eighteen schools were included in the analysis of the last independent variable—principal leadership style. Linear regression was used to test the hypothesis of this study using an alpha level of .05.

Results of this study indicated that two independent variables were significant predictors of high school graduation rates. The first variable is average daily attendance. Students are more likely to succeed in school, and graduate, if they are present at school. Attendance is an important factor that must be focused on by school administration and teachers.

The second independent variable that is significant is the amount of teachers with advanced degrees. Schools that have a higher amount of teachers with a master's degree or higher produce higher graduation rates. Administrators, school districts, and the state department of education can use this information to encourage teachers to return to school to obtain an advanced degree.

An introduction of the study is included in Chapter I. A review of past and current literature is included in Chapter II. A description on how the study was conducted in included in Chapter III. Data analysis is included in Chapter IV. A summary, conclusions, discussion, and recommendations are included in Chapter V.

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CHAPTER I

INTRODUCTION

A high school diploma has been regarded as a minimum requirement for an individual to successfully engage in the labor force in the United States (Hall, 2007). Failure to finish high school and obtain a diploma has been characterized as a national problem (U.S. Department of Education, 1990) as school districts across the United States are losing students.

The number of students the high schools across the nation graduate any given year is a direct result of the state of its educational system (Alliance for Excellent Education, 2008). One can look at the recent graduation rates and dropout rates and determine that the educational system is failing to meet the needs of a large percentage of its students. There is a need for districts to discover ways to keep students in school until they graduate. School districts can contribute to the state of the economy by better preparing students for the workforce.

When a student drops out of high school, he or she is not the only one to suffer. For example, it is estimated that dropouts from the class of 2008 will cost the nation $319 billion over the course of the dropout's lifetime. Some of the lost revenue is from a lack of better paying jobs and paying taxes (Alliance for Excellent Education, 2008). It is more difficult for a student in the 21st century to be successful at a job without a high school diploma. In the ever-changing society that is more reliant on technology than ever before, students must be able to compete for jobs in the workforce.

Since obtaining a high school diploma is crucial in successfully engaging in the workforce, keeping student enrolled in school is vital. The problem of students dropping

out of school is a topic of current research. In order to discover ways to keep students in school until they graduate, understanding the reasons students drop out or why they continue in the education system is important. A local school district could have the latest technology, best teachers, and engaging lessons, yet students continue to drop out of high school. In the year of 2007, an estimated 70% of students graduated from high school within 4 years and 50% of minorities graduated (Civic Enterprises, 2007). If interventions are discovered, school districts could help today's students be more successful.

Some students get so far behind in their classes that catching up may seem impossible. Oftentimes, these students lag behind a grade or more. The problem of failing grades and not enough Carnegie units, the units required to graduate, may arise. Some students may reach their junior year and realize that they need more classes than time will allow to meet the requirements for graduation. As a result, students may become discouraged and therefore drop out of high school.

Teachers want students to graduate from high school; however, questions arise as to how to best help them. Some teachers have found a way to keep their students enrolled, and some districts have been more successful in graduating a large percentage of their students than other districts. Discovering effective strategies to get all students to graduate is important and necessary for the well being of students and for society in general.

School leaders should not ignore the issue of high dropout rates. If the dropout rate continues at current levels, a national crisis could occur. Discovering factors or characteristics that will explain or predict why some schools have a high rate of graduating students while others do not is important. By discovering these factors,

schools with a high rate of dropouts could implement strategies in order to increase the graduation rates of the school.

A Nation at Risk

In 1983, The National Commission on Excellence in Education released the report *A Nation at Risk: The Imperative on Education Reform* for the U.S. Department of Education. The document was the result of 18 months of study of public education in the United States. The researchers discussed the fact that America has turned away from what the role of education has been previously. The basic purpose of receiving an education at the K-12 level as well as higher education must be restored (*A Nation at Risk*, 1983).

The report suggested that public schools stop trying to meet the emotional and social needs of students and return to focusing on basic academic achievement. The focus of trying to meet students' emotional and social demands is a financial burden and huge investment of people resources that, according to *A Nation at Risk*, the nation must not and cannot take on anymore (National Commission on Excellence in Education, 1983).

The report (National Commission on Excellence in Education, 1983) raised the concern that students from other countries were performing better intellectually which will, in turn, have an effect on the United States' industry and commerce. America was falling behind. If students in the U.S. are not able to compete for competitive jobs in these areas, perhaps students from other countries would take these jobs from them. The National Commission on Excellence in Education made a promise to Americans that "All, regardless of race or class or economic status, are entitled to a fair chance and to the tools for developing their individual powers of mind and spirit to the utmost" (p. 4). This

promise is being threatened when not all students are able or capable of finishing high school and adequately entering college or the work force.

The document concludes by recognizing that educators can no longer expect the minimum from students. Educators in classrooms, schools, and school districts often discuss the "minimum requirements" to pass. Educators, as well as the public, must stop requiring the "minimum" and start expecting students to reach their highest potential (National Commission on Excellence in Education, 1983).

A Nation Accountable

Margaret Spellings (2008), Secretary for the U.S. Department of Education, released a follow-up report to *A Nation at Risk* titled *A Nation Accountable: Twenty-five Years After a Nation at Risk.* This study examines dropout rates and explains the need for school districts to calculate their dropout rate and graduation rate more accurately. With the consequences for a student dropping out before graduation needing attention, measuring dropout rates and graduation rates effectively in schools is very important. The report points out that some school districts report a graduation rate of 90% when in fact it was only 70%.

The report of dropout rates from *A Nation Accountable* examined minority students and found the results to be startling. The report indicated that only half of African American and Hispanic students actually graduate from high school. Unfortunately, according to Spellings (2008), some parents will have to realize that the likelihood of their child graduating from high school is about the same as a coin toss.

Consequences of Not Graduating High School

Many consequences result from students dropping out of school before graduation. According to Spellings (2008), students who do not graduate have a much more difficult task of finding a job and earning enough to support themselves and their families. They are much more likely to be unemployed, receive welfare, live in poverty, and perhaps end up in jail.

The consequence of not graduating high school reaches farther than the student. For all high school dropouts receiving assistance, it is estimated that they cost the federal government $7.9 to $10.8 billion in welfare, food stamps, and governmental housing (*Education Week*, 2006). Students who do not graduate high school are reported as living 9.2 years fewer than students who graduate high school (*USA Today*, 2006). If the high school dropout rate were reduced by 50%, the U.S. Tax Commission would reap $45 billion each year. An increase of just one-fifth would generate $18 billion in savings. The savings would come from a change in tax revenues, a decrease in crime, and lower welfare payments (*Teachers College Reports*, 2006).

Before the era of technology, a student could quit school early in his or her teenage years and adequately provide for his or her family. However, in the ever-changing economy of the 21st century, that is no longer true. The job market is changing on a daily basis. In order to succeed in the workforce, a student must be proficient in math and English. It should be the goal of each school district to provide students with the type of education that will provide them the opportunity to adequately provide for themselves and their family (Bill and Melinda Gates Foundation, 2006).

While the fact remains that on average high school dropouts will earn significantly less than individuals with a high school diploma, there is more that happens to a high school dropout. Forty percent of students who do not graduate from high school will receive some sort of government relief (Spellings, 2008). However, these statistics do not account for every school in every state. Of the 14,500 traditional high schools in the United States that have over 100 students enrolled, 1,700 of these schools account for half of the students who leave high school before the 12th grade. Discovering what the other 12,800 schools are doing resulting in a higher rate of graduating their students is necessary (Spellings). If these schools are in fact graduating close to 90% of students within 4 years, this is worth finding out. Researching and discovering factors that contribute to the success of schools could help in better preparing today's students for success.

Discovering ways to keep students in school could result in a higher choice of success. Teachers desire that all students succeed in graduating from high school; however, questions arise as to how to help them. Some teachers and schools have figured out a way to keep their students enrolled. Some school districts have been more successful in graduating a large percentage of their students than other districts. Discovering how to get ALL students to graduate is important and necessary for the well being of students and for society.

Statement of the Problem

Graduation rates have been defined as a national crisis. Predictors of graduation rates need to be researched in order to determine significant predictors and influences of graduation rates. When these predictors have been found, school districts can benefit by

placing emphasis on these predictors in order to raise the graduation rates. The economic implications for dropouts cannot be ignored (U.S. Department of Education, 1990).

Purpose of the Study

The purpose of this study is to investigate public high schools in the state of Mississippi to determine characteristics that would help explain or predict their graduation rates. This study will include a comparison of graduation rates among select schools using several variables: average daily attendance, socioeconomic status as expressed by percentage of students eligible for free or reduced lunch, adequate yearly progress, the percentage of teachers with advanced degrees, Algebra I standardized scores, teacher salary, eighth grade Mississippi Curriculum Test scores, size of school, and principal leadership style.

Chapter II is a review of existing research. Possible predictors of graduation rates, statistics on graduation rates, and how to improve the graduation rates are reviewed as well. Information on the discrepancies of how rates are assessed by school districts is included. Additionally, the theoretical framework is included in Chapter II. Methodology for this research project is explained in Chapter III.

Definition of Terms

Adequate yearly progress - continuous progress and expectations public schools must meet every year (U.S. Department of Education, Office of Elementary and Secondary Education, 2007).

Advanced degree - a master's degree or above (Mississippi Department of Education Highly Qualified Teacher Criteria, 2007).

Average Daily Attendance - the average number of students who attend school during the school year on any given day (U.S. Department of Education, Office of Elementary and Secondary Education, 2007).

Dropout - According to the Department of Education National Center for Education Statistics (2007), a dropout is an individual who:

1. was enrolled in school at some time during the previous school year;
2. was not enrolled at the beginning of the current school year;
3. has not graduated from high school or completed a state- or district-approved education program; and
4. does not meet any of the following exclusionary conditions: transfer to another public school district, private school, or state- or district-approved education program; temporary absence due to suspension or school-approved illness; or death.

Graduation rate - for the purpose of this study, a percentage of students a school graduates any given year.

High school - for the purpose of this study, high schools are defined as public schools containing at least ninth through 12th grade.

Laissez-faire leader - is defined as a non-leadership component (Avolio & Bass, 1994).

Principal - for the purpose of this study, the individual hired by the school district to oversee the daily operations of the school.

SPSS - a software package used to analyze data.

Transactional leadership - "is a constructive style of leadership using constructive and corrective transactions by defining expectations and promoting performance to achieve these levels" (Avolio & Bass, 1994, p. 98).

Transformational leadership - "is defined as a process of influencing in which leaders change their associates' awareness of what is important and move them to see themselves and the opportunities and challenges" (Avolio & Bass, 1994, p. 97).

Delimitations

This study was delimited to public school districts in Mississippi that have only one high school with principals who have been in place for at least one full academic school year. The data were collected from a single academic year, the 2007-2008 school year.

Research Question

This study was guided by the following research question:

Is there a relationship between a school's reported average daily attendance, Algebra 1 scores, teacher salary, socioeconomic status, eighth grade MCT scores in math and language arts, percentage of teachers with advanced degrees, Adequate Yearly Progress, school size, principal leadership style, and graduation rate?

CHAPTER II

LITERATURE REVIEW

Graduation Rates in the United States

National Dropout Statistics

In the year 2006, the United States was ranked 17th in the world in the percentage of students who graduated high school. Students who drop out of high school before graduating will be less prepared to enter college for further education opportunities or to enter the workforce. In order to understand better how to assure students graduate high school, much research has been conducted. School districts and educators are doing all they can to assure that students stay in school (Hall, 2007).

A report generated by America's Promise Alliance found that nearly one-third of high school students do not graduate each year. This is calculated to be approximately 1.2 million students each year. Although there is an overall graduation rate of 70%, only half of minority students will graduate. Many call this statistic a silent epidemic (Civic Enterprises, 2007).

Gradation Statistics by Ethnic Group and Socioeconomic Status

Another report indicated that every 29 seconds a student somewhere in the U.S. drops out of high school (www.onthebus.ms). In 2007, it was reported that the number of the Black male adults who dropped out of school, 72% were unemployed (National Report: Black Males Rampant Joblessness, 2007). A White student from a wealthy family is seven times as likely to graduate from high school compared to a poor student (U.S. Department of Education, National Center for Education Statistics, 2007).

Because only an average of 70% of students graduate high school, examining the characteristics of students who actually finish high school is important. The percentage rates differ along racial lines. Eighty percent of Asians who start the ninth grade will graduate 4 years later. Seventy-six percent of Caucasians who start the ninth grade will graduate 4 years later. Fifty-eight percent of Hispanic students who start the ninth grade will graduate 4 years later. The lowest percentage is that of African-Americans students—53%. This accumulates to a 27% gap between ethnic groups (Alliance for Excellent Education, Policy Brief, 2008).

A report issued by the Alliance for Excellent Education predicted that only a third of ninth graders in 2008 would graduate within 4 years ready for college or employment. Although another third would graduate, they would not be considered successfully ready for college or work. The last third will not graduate from high school (Greene, 2005, as cited in Alliance for Excellent Education, 2008).

The Alliance for Excellent Education was founded in 2001 by Gerard and Lilo Leeds. Funding is provided by organizations and the Leeds. The alliance consists of members who are concerned with the state of the public school system: students, parents, teachers, administrators, men and women in governmental office, and others from different educational organizations. The purpose of the alliance is to be an advocate for middle and high school students in their quest for student achievement. The alliance serves as an organization that provides policies that will benefit the needs of today's students, especially students who are at-risk for not graduating high school (www.all4ed.org). Discovering what can be done to increase graduation rates is important. Many studies have been conducted on different aspects affecting that rate.

Pinkus (2006) reports that the act of graduating should not be the final word. The act of graduating is a testament to how well today's public schools are preparing students for the workforce and college.

Graduation Rates in Mississippi

Mississippi has recently realized the need for a focus on dropout prevention when statistics revealed that only three out of four students who start high school will graduate after 4 years. On an average day there are 36 students who drop out in Mississippi (www.onthebus.com). The Mississippi State Department of Education has noted low grades, discipline problems, and failure to get involved in school activities as three reasons why students drop out of high school (Dropout Facts and Stats, 2008).

Many ways to determine and report graduation and dropout rates exist. The Mississippi State Department of Education has three ways of reporting graduation rates. The first method, and the one used to report to the U.S. Department of Education, is the "traditional" method. This method has been the one used since 1993 under the Mississippi Report Card. This rate is normally the highest of all three methods and does not take into consideration students who receive a G.E.D., an occupational diploma, or students classified as needing special education. This method also includes students who take longer than 4 years to graduate in the graduation rate ("Understanding Mississippi Graduation, Completion, and Dropout Rates," 2007).

The second method is the "independent" method which calculates a graduation rate based on school enrollment, the count of graduates, and survey information from the United States Census Bureau. This rate is calculated by using several combined methods: the Manhattan Institute Method, the Averaged Freshman Graduation Rate, and the Urban

Institute Cumulative Promotion Index Method. This calculation is reported in addition to the traditional method, although the results using the independent method are normally lower than the traditional method ("Understanding Mississippi Graduation, Completion, and Dropout Rates," 2007).

The third method used to calculate graduation rates in Mississippi is the "cohort" method. This method uses information provided by the Mississippi Student Information System (MSIS). This method tracks students from the time they enter the ninth grade, for 4 years. This method also follows them if they transfer districts. Mississippi currently uses the cohort of ninth through 12 graders to calculate all three types of graduation rates. However, the Mississippi State Department of Education will soon start using the cohorts of seventh through 12th graders once enough data have been collected. This method will take into account students who drop out prior to ninth grade ("Understanding Mississippi Graduation, Completion, and Dropout Rates," 2007).

Consequences of Not Graduating High School

Economic Impact

Dropouts not only affect the local school district but the national economic system and the students and families of the students who drop out. The students who failed to graduate in the year 2007 will require the government to spend an additional $300 billion over the course of their lifetime (Khadaroo, 2008).

Studies have been conducted measuring the financial toll that occurs from a high rate of dropouts in the school system. Studies indicate that students who do not graduate high school will earn $9,200 less each year than a high school graduate (www.onthebus.com). Over the course of a lifetime this could add up to $260,000

(*Education Week*, 2006). Moreover, one year's group of dropouts will earn approximately $1 billion less than a college graduate over the course of a lifetime (Civic Enterprises, 2007). Also, dropouts are twice as likely to end up living in poverty (www.onthebus.ms).

The welfare system is affected due to students dropping out. Dropouts will contribute around $60,000 less in taxes. One year of dropouts would generate $192 billion less in income and tax loss alone. For all the high school dropouts receiving assistance, it is estimated that they cost the federal government $7.9 to $10.8 billion in welfare, food stamps, and governmental housing (*Education Week*, 2006).

Dropouts are twice as likely to be incarcerated (www.onthebus.ms). If the country could increase the graduate rate by just 1%, it would save the United States $1.4 billion in law enforcement and prison costs alone (*USA Today*, 2006). If the high school dropout rate were reduced by 50%, the U.S. tax department would reap $45 billion each year. An increase of just one fifth would generate $18 billion in savings. The savings would come from tax revenues and less payments for public health, less crime, and fewer welfare payments ("Teachers College Reports," 2006).

Many researchers have attempted to create a formula for calculating the return benefits for each dollar spent on education. One researcher calculates that if the government were to invest $82,000 in each student, the economy would benefit several times over the in long run (Hoff, 2007). In a study titled "The Costs and Benefits of an Excellent Education for America's Children," it is estimated that the government would save $186,500 for each new graduate who completed high school.

Other studies have been conducted on the effects of dropping out. Studies have indicated that students' life span is affected by whether or not they graduate. Students

who do not graduate high school are reported as living 9.2 years shorter than students who do graduate (*USA Today*, 2006). The personal and financial, which is in the millions, repercussions associated with dropouts is enormous; therefore, it is imperative that the crisis is a topic of current research. America's Promise Alliance has joined with many national sources such as State Farm, AT&T, Ford, and the Bill and Melinda Gates Foundation to address the crisis of high dropout rates as well as to investigate methods to correct the trend (Civic Enterprises, 2007).

Dropout Trends

The community most often views a dropout as a student who was a discipline problem, lacked initiative or drive, was irresponsible, rebellious, or who made failing grades. However, in a report by Civic Enterprises (2007), it is reported that 88% of students who drop out are passing all of their classes. Moreover, 70% feel that they could have graduated, and 66% did not feel that expectations were high enough.

According to Civic Enterprises (2007) titled "A Silent Epidemic," many students drop out for similar reasons. According to the research, the primary reason students drop out is because of lack of interest in the class. With the many federal mandates given to teachers by *No Child Left Behind* and standardized testing, being creative in class is difficult for teachers. Because of guidelines, teachers oftentimes do not have the flexibility to teach to the interests of the students. Teachers are given a rigorous list of objectives that must be covered during each school year. Objectives are listed to be taught at a certain Depth of Knowledge (DOK) that students might not be familiar with. Teachers are expected to cover objectives that will be tested by standardized tests at the

end of the year (Civic Enterprises, 2007). With the rigorous testing, teachers are required to teach and test at more difficult levels.

According to Swanson (2008), the environmental background of a student plays a role in graduating high school. There is a correlation between the environment the student lives in and his or her success in school. This is also relevant for an entire school; a school located in an urban part of the state has an estimated 15% lower graduation rate than a school located in the suburbs (Swanson, 2008). Research suggests that other top reasons students drop out are that they missed too many days of school, associated with friends who did not set school as a priority, did not have enough rules and guidelines placed on themselves, and lastly, were failing in school (Civic Enterprises, 2007).

The Editorial Projects in Education Research conducted a study with the Bill and Melinda Gates Foundation to determine the characteristics of America's 50 largest cities. New York, Los Angeles, and Chicago were the top three. A total of over 6 million students were involved in the study. The research foundation created a formula for determining the likelihood that a student will graduate after only 4 years of high school. The formula is derived by multiplying the ratio of students who complete 9^{th} grade, 10^{th} grade, and 11^{th} grade and the number of students who graduate. The product of these numbers will determine the projected graduation rate. The study concluded that a student located in one of the 50 largest cities in the nation has around a 50% chance of graduating on time, compared to the national average of 70%. In four cities—Baltimore, Cleveland, Detroit, and Indianapolis—only 35% of students who started in the ninth grade graduated on time (Swanson, 2008). In addition, the study concluded that the graduation rates of males in general is eight points lower than females.

According to a study conducted by ACT, the lack of proficiency in reading is becoming a national problem (*Education Week*, 2006, as cited by Gewertz, 2006). Students may have such difficulty in school due to lack of reading comprehension abilities that they may drop out. Students may blame the school system rather than taking the responsibility of not studying enough or admitting that they did not have the skills to be successful in high school (Gewertz, 2006a).

Some students drop out due to difficulties with class work. According to Gewertz (2006a), the graduation problem might actually be a literacy problem. In the article, Bob Wise, president of Alliance for Excellent Education, is quoted as saying, "Underneath the frustration of a lot of these kids is an adolescent-literacy issue, of course, class isn't interesting if you can't understand it" (p. 2). Students might feel apprehensive about admitting that they dropped out of school because they actually cannot read at the ability required.

Factors that Influence Graduation Rates

National Studies on Graduation Rates

Through research, many predictors, indicators, or signals have been found that are precursors to a student dropping out. During a study conducted in Philadelphia beginning in 1996, middle school students were followed for several years to determine if signals exist that would predict a future dropout. The study determined that as early as the sixth grade there are four indicators that would produce a 75% likelihood a student would dropout of high school. The probability of dropping out of high school is greater the earlier the student displays one of these characteristics. The four signals are a failing grade in math, a failing grade in English, attending school less than 80% of the time, or

exhibiting an unsatisfactory behavior. All of the above-mentioned signals are just symptoms of deeper rooted problems. The root of the problem could be a lack of motivation, low level of support for school at home, or social and emotional problems (Nelid, 2007).

In the same study, a group of eighth graders was monitored over a course of several years to determine whether similar predictors exist. The results were the same; students who failed either math or English or were absent from school displayed a 50% chance of dropping out (Nelid, 2007). Although the results were the same, middle school students who displayed the signals had a higher chance of dropping out than high school students. It was determined that 80% of dropouts exhibit their first signal before the end of their ninth grade year. One suggestion by Nelid is to have a rigorous program set in place for ninth graders. The program should have guidelines in place to catch signals sent by students. When a student exhibits a signal, the school should have strong remediation tactics in place that could aid the student in getting back on track.

Further studies have been conducted comparing students' socioeconomic status. Alliance for Excellent Education indicated that students coming from families in the top 25% of family income have a better chance of graduating than students who come from families that do not make as much money. This translates to wealthy students being seven times as likely to graduate than students in poverty.

In a study conducted by the National Institute on Drug Abuse and the Office of Juvenile Justice and Delinquency Prevention on the Robert Wood Johnson Foundation, five theories were examined to determine whether predictors of high school students not graduating exist. The first theory examined was the Academic Mediation Theory. This

theory proposed that lack of academic achievement and level of school influence is the strongest prediction of high school graduation rates. Academic achievement can be measured using standardized test scores. The level of school influence is the level at which students determine how important school is them. The more students are involved and committed to school, the more they achieve. The more students achieve, the less likely they are to drop out of high school (Cairns, Cairns, & Neckerman, 1989). After research was conducted, this theory resulted in a significant predictor of graduating high school (Battin-Pearson & Newcomb, 2000).

The next theory tested as the General Deviance Theory. This theory proposed that the more defiant a student's behavior, the more likely a student was to fail academically (Elliott & Voss, 1974). This theory relates to the previous one. The less a student achieves academically, the more likely he or she is to drop out of high school. The results of the research indicated this theory to be a significant predictor of whether or not students will drop out by 10th grade (Battin-Pearson & Newcomb, 2000).

The next theory tested was the Deviant Affiliation Theory. This theory suggests that although students might not participate in deviant behavior, if they associate themselves with other students displaying this behavior they are at risk for dropping out also (Halliman & Williams, 1990). Further studies indicate similar results. As discussed earlier, students who display deviant behavior are at a greater risk of dropping out of school. Research has stated that students who hang around deviant students are also at risk for dropping out. School districts that implement strategies to reduce deviant behavior are actually helping two groups of students: deviant students and peers of

deviant students. After research, the Deviant Affiliation Theory produced a strong significant predictor of dropping out of high school (Battin-Pearson & Newcomb, 2000).

The next theory tested was the Poor Family Socialization Theory. This theory relates to the influence on the decision as to whether or not to stay in school as influenced by a student's family background (Hymel, Comfort, Schonert-Reichl, & McDougall, 1996). Family is perhaps the strongest and earliest detected influence of high school graduation (Newcomb, 1997). Families are the support system for a child. The values and morals of a child are learned through family members. The results of the research indicated the Poor Family Socialization Theory was determined to be a significant predictor for graduation and dropout rate (Battin-Pearson & Newcomb, 2000).

The last theory tested as the Structural Strains Theory. According to Rumberger (1987), demographic studies suggest that males are more likely to drop out than females. Additionally, students from poor families are more likely to drop out than students from wealthy families. The results of the research indicated the Structural Strains Theory produced a strong significant predictor of dropping out of high school (Battin-Pearson & Newcomb, 2000).

California Dropout Research Project

The Los Angeles Unified School District was the focus of a recent study conducted by Silver, Saunders, and Zarate (2008). The study sought to determine certain times and conditions when students dropped out of high school. During research, it was found that the state of California had reported a graduation rate of 87%. However, after closer analyses of 7 years of data archived in the Student Information System, a more

accurate rate of 71% was produced. The discovery of such low rates encouraged future research in the district.

School Characteristics

In a study conducted by Nield and Balfanz (2006), results indicated low attendance rates and failing grades in math and English to be significant predictors of dropout rates. The findings were significant enough to predict the likelihood of whether particular students in the sixth grade class would graduate (Silver et al., 2008). Additionally, Gewertz (2006b), in an article, mentions that middle schools can adopt an "early-warning system" that would alert administrators of students who will possibly drop out. Consequently, behavior, sixth grade attendance, and class failures are significant predictors of graduation rates.

Social organization is defined as the relationships between the teachers and students. The relationship between student and teacher can be positive or negative and can influence whether or not the student stays in school (Silver et al., 2008). In a study conducted by the Bill and Melinda Gates Foundation (Evan et al., 2006), results concluded that smaller schools had more positive teacher/students relationships and an increased graduation rate.

The findings of the study revealed that students who failed their ninth grade year had a 50/50 chance of completing the next grade. However, students who failed the sixth or seventh grade could recover and get back on track faster than a student who failed the ninth grade. Males graduated at 12 percentage points lower than girls, across all races, socioeconomic status, and achievement levels. Students who were considered "over age"

had a graduation rate of only 29%, possibly because the older the students become, the more responsibilities they incur outside school (Silver et al., 2008).

Further studies indicate that students who had access to qualified teachers graduated at 12 percentage points higher than students who attended class taught by teachers who were not highly qualified. A group of not highly qualified teachers causes a problem within the school. The problem leads to a high turnover rate and weakening of professional development (Shields et al., 1999, as cited in Silver et al., 2008).

Teachers' salaries were discovered to influence graduation rates. In a study conducted at Teachers College, researchers estimated that increasing the teacher salary by 10% would yield 10 more graduates for every 100 students. Consequently, as a result of increasing teacher salary, the number of teachers to choose from would increase. Administrators would be able to pick and choose who the best teachers would be for their district ("Teachers College Report," 2006).

Researchers suggest that of all the academic courses offered, Algebra I was the highest predictor of graduation rates (Orihuela, 2006). In Mississippi, Algebra is a required credit for graduation. Students who pass Algebra I in the ninth grade are two times more likely to graduate after 4 years of high school. According to Orihuela (2006), the final grade in Algebra I is a predictor of graduation rate. In this study, a logistical regression was run to compare high school graduates and dropouts and whether or not they passed Algebra I. The results showed support that the outcome of Algebra can be used as a prediction of graduation. In this study, students who were not successful in Algebra I were four times more likely to drop out than other students (Orihuela, 2006). States can use this information when creating schedules at the beginning of each year.

School districts could add supplemental resources that could ensure the success of students in Algebra I.

Attendance was another significant predictor that can be influenced. Students who missed up to 5 days per year graduated at rates between 65% and 69%. Students who missed up to 10 days graduated at a rate of 40%. When students missed up to 20 days, the graduation rate dramatically dropped to 24%. Standardized test scores are another predictor of graduation rates. Only half of the students who score below the 50^{th} percentile will make it to graduation (Silver et al., 2008).

In a study conducted by the Consortium on Chicago School Research, grades and attendance were found to be significant predictors of high school graduation. The report argues that students' freshman year is the determining factor of succeeding, even for struggling learners in middle school ("Freshman Grades, Attendance Striking Predictors of Later Graduating in Chicago High School Students," 2007). Freshmen students who finished their first year of high school with a B average or better had an 80% chance of graduating.

Attendance was found to be eight times more predictive than grades in determining graduation, no matter what grades the student had. Research also found that higher classroom grades and attendance were higher in schools where students felt their teachers cared about them. Schools that held high expectations and produced a connection between school and life after school reported higher attendance and higher grades ("Freshman Grades, Attendance Striking Predictors of Later Graduating in Chicago High School Students," 2007).

Student Reported Reasons for Dropping Out

Further studies have been conducted with students who have dropped out. In one study, dropouts were asked what schools could do to discourage students dropping out. The number one response, reported by 70% of students, is to make class more interesting (Civic Enterprises, 2007).

Students report the second thing that school districts can do is to manage students who skip school in a more effective manner (Civic Enterprises, 2007). In another study discussed by Gewertz (2006b, 60% of dropouts surveyed reported that schools should enforce discipline and hold students who skip school more accountable than they have in the past. (Gewertz, 2006b). Forrest County Agricultural High School, located in Brooklyn, Mississippi, used this system to help reduce absences. Someone from the office calls home every time a student is absent. In some cases, the parents did not know their child was not at school and took the initiative to get the child to school.

The third initiative dropouts suggested that could reduce dropout rates is for teachers and administrators to assist students with issues that occur outside of class (Civic Enterprises, 2007).

Civic Enterprises (2007) reports dropouts as saying that schools can improve the probability that students would graduate by teaching real-life problems that are relevant to the lives of teenagers. With teenagers growing up in the Generation Why era, teachers must provide students with the "why" of what they are teaching. Students are concerned with things that are real and relevant to their everyday life.

The Bill and Melinda Gates Foundation surveyed dropouts in a follow-up study to "The Silent Epidemic Research Project." Results indicated that students desire to make a

difference. Eighty-one percent reported that providing students with an opportunity to participate in service to the community could increase the probability of students graduating from high school (Civic Enterprises, 2007).

School districts are also encouraged to provide multiple options for classes required for graduation. A class must be of some interest to students. The research discovered that students are more engaged in learning and therefore stay in school longer if they are interested in the class they are taking (Fleischauer, 2007).

Leadership Styles

Education Trust

In a study conducted by Education Trust, three schools at high levels of achievement were analyzed to explore what these schools were doing. Each of the three schools analyzed serve minority students and students living in poverty. These schools have higher than normal achievement scores, small achievement gaps, and have the ability to keep more students until graduation (The Power to Change, 2005).

The first of three schools is a large school serving over 2,000 students, most of whom are minorities and come from poor families. What stands out about Elmont Memorial Junior-Senior High School in New York is that 100% of its students graduate. The principals credit the exceptional teaching ability of the teachers and the focus on instruction. The teachers credit the strict observations they go through seven times a year until tenured. Observations are referred to as tools for improvement. Once they are tenured, they observe and evaluate colleagues. As the administrators observe the teachers, specific implications are made for improving. The teachers are observed when teaching and then evaluated by the engagement level of the students. Another component of the

school that is said to lead to its success is how the administrators create the master schedule around time for the teachers to plan together. The motto of the administrators is "When you believe they can do that, they rise to the challenge" (The Power to Change, 2005, p. 9).

Another school described in the study is vastly different than the previous one. University Park Campus School in Massachusetts serves 208 students and has 12 teachers and a principal. A large percentage of its students enter the school far below an appropriate reading level, and 70% of the students qualify for free lunch. The administrator credits the success of the school to the passion of the teachers. The faculty credits the success of the school to the relationships that have been built. With a small number of students at the school, the teachers know all of the students, and vice versa. The success of the school is attributed to the focus on excellent instruction on basics. All students are required to take English, math, science, and a history every year. Very few electives are offered since the focus is on the basics. There is a school-wide focus on reading. Everyone spends time each day reading, even the teachers (The Power to Change, 2005).

The last school in the study is Granger High School in Washington. Most of the students at this school (86%) qualify for free lunch. The community in which the school resides is made up mostly of migrant workers who work in the agricultural field. Most of the students live in very primitive conditions. The principal is a former resident of the area and came back to the community to ensure that the students succeed. The success of the school is attributed to high expectations, pairing each child to a specific teacher,

creating a focus on reading, and providing students who have failed another opportunity (The Power to Change, 2005).

According to Bell, Bolam, and Cabillo (2002), school leaders can impact students' achievement. Whether a principal wants to or not, he or she is going to have an influence on the students in the school building. In a report by the Department of Education and Employment in 1998 (as cited in Rutherford, 2005), it was determined that a leader is needed at the school in order to construct an environment of purpose for the students, set high expectations for the students and teachers, give teachers the tools necessary to improve instruction and learning, and observe performance of the students.

A study conducted by Rutherford (2005) revealed that the leadership of schools makes a difference in student achievement. The study consisted of several under-performing schools. These schools had a change of leadership and began to improve. Several schools were not achieving academically, behavior was a problem, and standards were set very low. Starting a new school year with a new leader, who set new discipline policies and rewarded positive behavior instead of dealing with negative behavior, the school began to make changes. The students began to improve academically and a new standard for acceptable behavior at school was implemented.

In the same study as cited above, another school was examined to uncover the successful outcomes. In a school before a particular leader arrived, the standard of learning was set very low. Although there was rarely a discipline problem, students were not engaged in the learning process. A new leader stepped in and raised the bar of expectations. New standards were set for learning and student engagement in the classroom. After a few years, this school became one of the best schools in the city

regarding student achievement. In conclusion, Rutherford (2005) states that effective school leadership makes a difference to academic standards and a much greater difference than previous research has suggested.

In a study conducted by researchers at the University of Maryland, six schools were examined to determine characteristics of school success. Six schools that had demonstrated exemplar results were examined in Kentucky, Colorado, and Nebraska. The sizes of the school varied from 283 students to 964 students. The common theme found in the schools was that administration requested that teachers in each grade level collaborate together in order to increase student achievement. Special Education teachers also joined in on the meetings to ensure all children were achieving (Caron & McLaughlin, 2002). This is an example of how principal leadership can determine the success of a school district. When proper leadership is evident, more students will achieve.

The Garden Grove Unified School District in California, located close to the Los Angeles area, serves half a million students. Garden Grove attributes the success of the school, and the considerably higher graduation rate, to the leadership it has experienced in the last several years. One of the goals of the leaders of the district is for every student to score proficient on standardized tests after being in the school district for 5 years or less (Dougherty, 2008).

It is the goal of the Garden Grove school district to hire and retain teachers of high quality. Administration seeks to hire teachers who have a passion and will commit to students and learning. After teachers obtain a teaching position with Garden Grove they are encouraged to stay. New teachers to the district participate in mentor teacher

induction program for 2 years. This program provides professional development that will assist the teachers with instructional strategies in their classrooms (Daugherty, 2008).

The motto of the Garden Grove school district is "Prevention is the best Intervention" (Dougherty, 2008, p. 34). This motto allows teachers to assist the many different learning abilities and styles of students. Students' grades are recorded several times a year as a way of tracking student achievement. The district distributes report cards with standards met to parents on a regular basis. The information is given to parents in a detailed form to ensure the parents are notified of their child's progress throughout the year. The teachers meet with the parents to ensure interpretation of the report is accurate (Dougherty, 2008). Parents then have a chance to discuss with the teacher any needs their child may have. Leadership plays a key role to ensure communication is at a high level.

Public Education in the United States

The Beginning of Public Education

As early as the time between the Revolutionary War and when the Constitution was approved, some Americans believed that in order for the republic to survive, a system of public education should be in place. However, American education in the colonial era was primarily driven by parents and local communities rather than school districts and states. School was thought of as a place where rules and regulations of the community were learned (McCluskey, 2007).

Although Thomas Jefferson first proposed that all children be educated at public expense in 1779, a plan would not be put into place until the next century. Even at that time, not everyone embraced the idea of public education. In some towns, the militia had to escort some children to school under guard (Fulghum, 1990).

Horace Mann (1842-1870) has been considered a primary influencer in defining the role of public education. Mann maintained that education must focus on academics as well as general intelligence and integrity (Warren, 2001). According to Carr (2003), goals of education include the goal to equip young people with the knowledge and skills required to live a productive life personally, socially, and economically.

The Development of Secondary Education

There were very few secondary schools by the end of the late 1800s. With encouragement from Benjamin Franklin, colonial period schools were replaced with academies with the purpose of including secondary education. During this time, differences of philosophies influenced how students should be taught. One thought included rote memorization and another favored critical thinking. In the 1870s, the courts ruled that public school districts could require tax money to support high schools. This ruling greatly increased the number of public high schools in the United States (Ornstein & Levine, 2008).

The National Education Association formed a Committee of Ten in 1892 to investigate and make suggestions as to how students could best be served. The members were chosen from educators across the United States. They recommended 8 years of elementary education followed by 4 years of high school, regardless of what they intended to do after graduation (Hertzberg, 1988).

During the early part of the 1900s, enrollment in secondary schools had increased significantly. Due to the many different goals and attitudes of students, The Commission on the Reorganization of Secondary Education formed objectives for secondary education that would take into account the individual differences and abilities of students. They

adopted The Cardinal Principles of Secondary Education. These included: Health, Command of Fundamental Processes, Membership of the Home, Vocation, Civic Education, Worthiness of Leisure, and Ethics. All of the seven principles are interrelated. Students would be more successful if the implementation of all the principles was in place. Students must also have a willingness to follow these and an ethical character that will allow this learning to take place (Scherer, 1969).

By the beginning of the 20th century, the state courts passed compulsory laws requiring students to attend school. In 1916, the Keating-Owen Child Labor Act was passed preventing businesses from employing school-aged children. For the first time, all children, even immigrants who came to the United States to work, were required to attend school (Ornstein & Levine, 2008).

The Reorganization of Secondary Schools

In the year 1918, the National Education Association initiated the Commission on the Reorganization of Secondary Education with the *Cardinal Principles of Secondary Education.* This changed the make up of the high school when it was recommended that high schools meet the different curriculum needs of the students by providing agricultural, commercial, domestic, and college prep curricula of all students enrolled in schools (Ornstein & Levine, 2008).

Several years later the division of high school curriculum was reorganized into four specific areas: college prep (for students desiring to attend college), commercial programs (including courses in bookkeeping and typing), vocational (including home economics, industrial, and agricultural programs for the students wanting to work on the family farm), and general academics (for the students whose educational experience

would end with high school). By this time secondary education was a uniform 4 years including grades 9-12. Subsequently, the public school system incorporated another division labeled junior high school, then later the concept of middle school, to serve as a transition between elementary and high school (Ornstein & Levine, 2008).

Federal Legislation of Education

The initiative to create a federal department of education was begun in the early 1900s (Slawson, 2005) when all states incorporated compulsory attendance laws (Ornstein & Levine, 2008). The bill proposed that annual appropriations for education would be $100 million dollars. In the early 21st century, that number rose to $1.25 billion. However, the bill was not passed. In 1980, when the U.S. Department of Education was officially established, federal funding of education and its resultant regulation had long been in place (Slawson, 2005).

Gibboney (2008) explained that a loss of democratic purpose of public education had been lost by the practice and policy making in the public education arena. He believed that John Dewey's theory of education should be of significant value since it is both comprehensive and democratic. Gibboney believed the issue of how the poor are helped through the public education system rather than in the private sector to be important. He also stated that among the greatest inventions is public education; no other invention has found the capacity to educate millions of underprivileged children, some of whom do not even speak English.

The initiative of desegregation began in the decades surrounding World War I. Inequality among rural schools compared to urban schools was discovered. This inequality led to states developing new forms of aid, minimum standards, and services

aimed to help struggling rural districts. State legislatures and departments of education realized a responsibility to guarantee a minimum level of schooling to all children of the state and to provide equal opportunity for education (Steffes, 2008).

Two of the most prominent African-American educators of the late 19th and early 20th centuries were Anna Julia Cooper and W.E.B. Du Bois. They were concerned about the difficulty of the Black community's lack of a proper education. They maintained that educating Blacks could achieve social advancement that would result in equality for Blacks. They wrote essays and books as well as participated in international affairs and worked together in conferences and meetings to get their message to the public (Aldridge, 2007). The early 20th century found many school districts, especially in the South, where Blacks and Whites were segregated. Oftentimes, the White schools were superior to the schools for Blacks. Unfortunately, it was not until October 29, 1969, that the U.S. Supreme Court ruled school districts must end segregation ("End of Segregation in Public Schools," 2008).

The time of accountability began in 2001 when Congress passed the *No Child Left Behind Act* launching new requirements for public schools across the United States. One of the biggest challenges is the requirement of testing in grades 3-12. This testing must include at least 95% of the student population. Previously, special education students were not included in the testing; however, this new law requires that special education students be tested along with regular education students (Ornstein & Levine, 2008).

In addition to the new standards of testing, teacher quality is also addressed in the *No Child Left Behind Act*. This act requires that all teachers be highly qualified. Each state can determine what "highly qualified" means to them (*No Child Left Behind Act of*

2001). This provision allows for discrepancies to occur from state to state. What "highly qualified" represents in one state could be totally different than what "highly qualified" represents in a different state.

No Child Left Behind also sets standards for increasing graduation rates from year to year. This law mandates that each state must set a goal for increasing the amount of students that graduate each school year. In order for schools to meet Adequate Yearly Progress (AYP), states must meet these graduation goals, as well as meet goals for each ethnic group (Alliance for Excellent Education Policy Brief, 2008).

According to newly-elected NEA President Dennis Van Roekel, the election year of the early 21st century is of utmost importance to public education. He maintained that electing a president and congress supportive of public education is a necessity in order to navigate change from a public school system with widening achievement gaps and skyrocketing dropout rates to a system of public education that is fulfilling its responsibilities to students. Van Roekel encourages educators to renew their commitment to provide a quality public education to students (Van Roekel, 2008).

Federal Funding

National Education Association

The National Education Association (NEA) has realized the epidemic of high dropout rates. The primary goal of the NEA is for parents, school districts, and community leaders to come together and implement the promise of a free and public education. In addition, the NEA has created a 12-point plan that it feels will assist the nation in dropout prevention. At the top of the list is the initiative to require students under the age of 21 to graduate from high school or receive an equivalent degree. The

government has current laws that require students under the age of 16 to be enrolled in school (Jehlen, 2007).

The NEA has created 11 other strategies tht have been found to aid in dropout prevention. The strategies include preschool and centers that will aid in helping older students graduate. A goal of the NEA is to gain help from parents, businesses, and other individuals in the community that will assist in increasing the graduation rate (Jehlen, 2007).

According to the NEA (2008), it is reported that dropouts from one school year alone will cost America over $200 billion over the course of a lifetime. It is suggested that the drop-out crisis become a national priority. The U.S. government has taken broad steps to assess the crisis of dropouts. However, this crisis must take the priority of everyone, not just persons in education. The government spends an average of $15,000 a year supporting a prisoner. However, the average amount spent to educate a child for one year is $6,000.

AT&T

Adding to the many companies donating money to help increase the graduation rate and decrease the dropout rate is AT&T. With a plan to donate $100 million over the next 4 years, this company will help high schools graduate more students and prepare them better for entry into college. Through this initiative, called AT&T Aspire, the company will provide money to fund grants for individual schools that have a plan to encourage students to stay in school. Also, a job-shadowing plan encouraging students to stay in school will be created (Robelen, 2008).

Not only will AT&T donate a large amount of money to school districts, the company will help America's Promise Alliance coordinate dropout-prevention summits across the nation. Additionally, a program will be put in place to gather national data on the issue of dropouts as seen from the eyes of school leaders themselves. The purpose of collecting these data is to determine why and when students leave school (Robelen, 2008). School districts could be more capable to addressing the dropout problem head-on if they knew solid reasons behind why students leave school.

Federal Initiatives

National Governors' Association

The National Governors' Association (NGA) was created in 1908 as a means for the governors of the 50 states to communicate their goals and issues concerning education in their states. A consulting group was formed out of the NGA as a way to implement the needs and goals of the 50 governors. The consulting group is named NGA Center for Best Practices (Curran, Hartney, & Pika, 2008). The NGA began working in 2005 to create a more standardized approach to reporting graduation and dropout statistics. The new system will track students when they enter the ninth grade and follow them until they graduate or dropout after 4 years (Hoff, Olson, & McNeil, 2008). The new calculation does not count students who receive a G.E.D. (General Educational Development) in the graduation rate. However, the American Federation of Teachers (AFT) is against the rule of not counting G.E.D. completers as graduates (Khadaroo, 2008).

The U.S. Secretary of State, Margaret Spellings, has been working on this project and ensures that the Education Department will use this method. Although some members of the NGA would prefer the new system to be voluntary, Spellings is requiring

the new reporting to be in full effect by the year 2013. Thirty-four governors have agreed to implement the formula current in their states, Mississippi being one of them (Spellings, 2008).

At an NGA meeting in 2005, leaders agreed to report graduation rates in the same way by the year 2012. The agreement is called the National Governors' Association Graduation Counts Compact. Thirty-two percent of states currently report graduation rates using this formula. Goals have been set to institute the new formula. A total of 42% will be using it by the end of the 2008 school year, 58% by the end of the 2009 school year, 76% by the end of the 2010 school year, 88% by the end of the 2011 school year, and 90% by the end of the 2012 school year. The other10% have not set a goal for which they plan to implement the new formula (Curran et al., 2008).

NGA is requesting that states start reporting graduation rates for 5- and 6-year cohorts (Curran et al., 2008). The problem with the current 4-year cohort is that it does not account for students who leave school before the ninth grade. The 5- and 6-year cohort data will keep track of students from the seventh grade until graduation.

Requiring every school district in every state to report graduation rates and dropout rates the same way would get everyone on the same level. However, it will be more difficult for some states to implement this new formula. Sixteen states have data systems in place to calculate using the new formula. Some states do not have the capabilities or the data systems to use this new method (Ramirez, 2008).

Education Trust found discrepancies of graduation rates were found in some states. New Mexico counted a student as a dropout if he or she left school during the 12th grade. However, this does not account for any student who leaves prior to the 12th grade. Indiana

reported a student as a dropout if he or she filed withdrawal forms with the school. However, there are many students who merely quite coming to school before being dropped from the roll (Ramirez, 2008).

According to Curran et al. (2008), as part of the NGA, created a report on Graduation in the United States in 2008. The report outlines some quick strategies that states can implement that will help states to accurately report graduation rates by the year 2012. It might take some states a few years to implement the new guidelines for reporting data, but there are small steps that can be taken to get there. The NGA suggests that states start by outlining to school districts ways to collect student data (Curran et al., 2008). Consequently, each school district can take the first step by implementing specific procedures for policy on collecting data. It is difficult for school districts to keep up with the many students who transfer in and out of their district. School districts can start by creating a policy on how to collect and keep track of these data (Curran et al., 2008).

In March of 2008, the ACLU filed a lawsuit against Florida for its low graduation rate. This is the first lawsuit of its kind. The ACLU is demanding that the School District of Palm Beach County increase its graduation rate and fill in the gap between racial and different socioeconomic groups. Also, Florida is being asked to create a more accurate way of calculating graduation rates (Khadaroo, 2008). The new initiative by Spellings will help with these issues.

Furthermore, the county of Palm Beach reported a graduation rate of 71.4%, although the suit claims that this number would actually be lower if calculated differently (Khadaroo, 2008). The rates vary considerably according to race. According to the research, the community feels the needs of the minority are not being met. The rate at

which Caucasians graduate is 20% higher than the rate at which African Americans graduate. The district feels the state should be the one held accountable. District leadership maintains that the state is the agency that sets the mandates and distributes funding.

The state of Florida is discussing the issue of how graduation rates are calculated and reported. There is a gap in the accountability system that could be attributed to the way districts report graduation rates (Khadaroo, 2008). The federal mandate *No Child Left Behind* puts pressure on test scores and graduation rates. Researchers maintain that in order to accurately hold states accountable, everyone must be reporting the rates the same way.

The state of Texas is reported to have been using the graduation formula recommended by the National Governors' Association since 1996, although the state of Texas is reporting a slightly higher rate than that calculated by other researchers (Hall, 2007). It will be easier for the state to correct the system than to create a new one.

The NGA, especially the education division, has agreed to help any state start the implementation process for reporting graduation rates using the Graduation Counts Compact that was agreed upon in 2005. The NGA also promises to continue reporting on the progress of each state as they all begin, and perhaps continue, the implementation process (Curran et al., 2008).

In April 2008, Margaret Spellings, U.S. Secretary of Education, announced an alteration to the *No Child Left Behind* law. Her proposal is that states set regulations on how school districts report graduation rates parallel with the National Assessment of Educational Progress (NAEP) standards (Hoff et al., 2008). The new system of tracking students also would require school districts to formally report the progress of each school

district from one year to the next. School districts would also be required to report data for each subgroup tracked for *No Child Left Behind* purposes. After the year 2013, states would use the progress from each subgroup alone to calculate Adequate Yearly Progress (AYP) (Hoff et al., 2008).

Education Trust, an independent educational group based in Washington, D.C., was the first to uncover the facts about the inaccuracies in reporting graduation rates. The purpose of Education Trust is to increase the quality of education. The group found that in North Carolina the reported graduation rate was very close to the one calculated after further research. Education Trust uses the formula encouraged from the U.S. Secretary of Education which is to calculate the number of students who enter the ninth grade and graduate 4 years later (Ramirez, 2008).

In a report entitled "Graduation Matters: Improving Accountability for High School Graduation," Education Trust reveals more information regarding the state of graduation and dropout rates in the country. After intensive research of the accountability standards in place under the *No Child Left Behind Act*, Education Trust revealed two problems regarding the graduation rates. The first problem is that each state's goals are set too low, and the second problem is that gaps between minority groups is not displayed in the average graduation rate as reported by each state. Education Trust recommends that each state report the graduation rates of each ethnic group as well as set high standards regarding graduation rates (Hall, 2007). The Mississippi Department of Education has set a priority in evaluating student achievement, and a focus is on improving instruction and student achievement. Education Trust recommends the same priority go to ensuring that more students graduate.

Every state should report graduation rates and dropout rates the same so they can be compared across the board more effectively. The Editorial Projects in Education Research Center suggests that, on average, each state's graduation and dropout rate is off by 12 percentage points. Understanding the impact of a high rate of students dropping out, or how to decrease that rate, the manner in which rates are determined must be effective. Studies show that discrepancies occur among states and even districts. Research has been conducted regarding how to implement better strategies in place that would result in a more effective and concrete rate so that the rates can be examined more fully (National Governors Association, 2006).

The *No Child Left Behind Act* is partly to blame for discrepancies due to inflated rates. According to Dillon (2008), school districts are under much pressure to meet the high standards of the bill that they inflate rates in order to dodge being labeled as a failing school. Graduation rates are assessed in different ways. From an article in the *New York Times*, Dillon criticizes the way states report graduation rates, Mississippi being the first one mentioned. The article describes Mississippi as reporting an 87% graduation rate with a more accurate rate of 63%, which was calculated by an independent group. Additionally, California is listed as reporting an 83% graduation rate but had an actual rate of 67% (Dillon, 2008). The article discussed the importance of everyone using the same reporting method for purposes of comparison.

Obtaining an accurate graduation rate is difficult. The optimal percentage would be the number of students who graduated divided by the number of students who were supposed to graduate. However, there are many variables that can occur (Pinkus, 2006). Using the Graduation Counts Compact, the graduation rate is the number of students who

graduated divided by the number of students who started the ninth grade 4 years earlier (Curran et al., 2008). This method, although better than what most states are currently using, makes room for inconsistencies.

With this method, questions arise about the possibility of particular students not being considered. Some questions asked are: what happens to students who transfer in from other states, or students who dropout of school during middle school years? Additionally, this method does not consider students who take longer than 4 years to graduate or students who have passed away. Some students are home schooled and successfully finish school or receive a G.E.D. and acquire employment. Also, what about students who receive a G.E.D. or receive a certificate of completion (severely handicapped) (Pinkus, 2006). These are some of the issues and questions that must be addressed using this new method of calculation.

Adequate Yearly Progress

No Child Left Behind mandates that each state must set a goal for increasing graduation and a target for the year 2014. In order for schools to meet Adequately Yearly Progress (AYP), states must meet these graduation goals, as well as meet goals for each ethnic group. The state has set a Safe Harbor, a stipulation that allows schools to still meet AYP when they have increased their graduation rate very minimally, less than one percentage point. In 36 states, this translates to increasing the graduation rate by graduating one more student over the course of 4 years (Alliance for Excellent Education Policy Brief, 2008). This increase is not enough. Adequate Yearly Progress is determined, in most states, by students' performance on standardized tests (which includes increasing

the scores of subgroups such as students from minority ethnic groups and students in poverty) and graduation rates (Pinkus, 2006).

States must meet the state's recommended growth in graduation rates in order to meet AYP for the year. Individual state agencies have the option to choose how to interpret what growth means. Some states have set the bar very low. Over half the states have set the goal to be any progress. Some states have reported that not losing any percentage points is determined as a gain (Hall, 2007). This can be interpreted many ways. Although some progress is better than one, meeting AYP would be more fair if meeting AYP for one state was the same as meeting AYP in another state. According to Hall, many of the standards set by states to improve graduation rates are meaningless and alarming.

America's Promise Alliance

America's Promise Alliance was created after the president's summit in 1997. General Colin Powell became the founding chairman and his wife Alma now serves as the chair. Since the Alliance was formed, it has become a leading organization that focuses on the needs of children. One of its current focuses is dropout prevention (America's Promise Alliance, 2006).

America's Promise Alliance established five promises that will prepare students for success. The first of the five promises is caring adults. Students need the security of having caring adults at home who will guide and support them. It is reported that one-third of teens lack a positive relationship with a parent. The second promise is a safe place. Children need to feel safe when at home, school, social events, as well as safe from harmful things in the media (America's Promise Alliance, 2006).

The third promise of America's Promise Alliance is to have a healthy start. This promise is directly aligned with Maslow's first need. Children must have basic needs met in order to be able to start the day. These needs include regular doctor visits for check-ups, nutrition and exercise, and skills and knowledge that will help them be successful during the day. With up to 80% of students saying they feel stressed on a daily basis, parents need to be given the tools to help their children with this promise (America's Promise Alliance, 2006).

The fourth promise is an Effective Education. With graduation being the first predictor of whether a student will be successful, this promise is very important for each and every child. In order for students to be successful in the workforce, they need the academic background, motivation, and organizational skills learned in school in order to be successful later in life (America's Promise Alliance, 2006).

The last promise is the chance to help others. Every child needs the opportunity to help others and make a difference in someone's life. The problem is that children are not given examples of how or opportunities to help. When children see others helping, they are given the opportunity to realize its importance. Giving students an opportunity to help someone instills some responsibility of community (America's Promise Alliance, 2006).

Dropout Prevention

High School Redesign

A school district in Sacramento, California, has found a way to increase graduation rates by simply adding more options. The graduating class of 2003 had a graduation rate of 76%. The school district joined forces with Linking Education and Economic Development (LEED) to increase the options for students. The non-profit organization

initiated an expansion from six graduating choices to 42. This expansion of more graduating options increased the graduation rate to 87% in just 3 years (E.W.R., 2008).

The New Century High Schools initiative partnered with New York City Schools in 2002 to increase the graduation rate of inner-city schools. Eighty-eight new small schools have opened with this new initiative since 2002. Of all the new schools to open, 78% of students graduate within 4 years. New York City Schools have a graduation rate of 58%. The 88 new schools consist of poor minority students with poor academic skills. The graduating class of 2006 only had 3% of its students to drop out. The group of small schools had an increased Average Daily Attendance (ADA) of 3 percentage points above the city schools (Gewertz, 2007).

The state of Massachusetts has been identified as a leader in setting high goals for graduating students. Massachusetts reports graduation rates for each ethnic group of students. The state sets its goals to increase the graduation rate of each minority group in addition to increasing the average. The leaders of the state plan to revisit these goals every couple of years to determine what should be done next (Hall, 2007).

Mississippi State Initiatives

Mississippi currently has 152 school districts that serve approximately 500,000 students. The poverty rate in Mississippi is 19% (Mississippi, 2004). The number of these students who do not score well on national math assessments has tripled over the past 9 years (www.onthebus.ms).

In 2006, Dr. Hank Bounds, Mississippi Superintendent of Education, released the plans for Mississippi to begin using the national method of calculating graduation rates under the encouragement of Margaret Spellings (www.onthebus.ms). Although the

Education Department does not require the new formula to be in place until 2013 (Hoff et al., 2008), Dr. Bounds wants to start accurately reporting as soon as possible (www.onthebus.ms). The first calculation using the new graduation formula produced a graduation rate of 61%. Dr. Bounds discussed how these rates were lower than expected but hopes that it will be a wake-up call. He attributes the new rate partly to the disabled and special education students being included in the calculation. These groups of students have not been included in graduation rates previous to this new formula (Coffey, 2006).

As an initiative for increasing graduation rates, the Education Department provided school districts with guidelines for creating local plans for dropout prevention. These plans were submitted to the state department in the spring of 2008. School districts will be held responsible for the initiatives stated in the dropout prevention plan. School districts were required to include a section in the plan on credit recovery. Credit recovery will help the students who have failed a course gain credit in the hopes of graduating on time.

In the fall of 2006, Dr. Hank Bounds proposed a plan to the state department that would provide more paths to the road to graduation. The proposed plan is labeled "Redesigning Education for the 21st Century Workforce in Mississippi." The plan would allow students to choose one of the following seven career paths: health care, construction and manufacturing, transportation, STEM (which includes science, technology, engineering, and mathematics), agriculture and natural resources, business and management, and human services. The purpose of the seven programs would be for students to select classes that are of interest to them and their future field. Taking classes related to their future field of work optimistically would better prepare students for the workforce. This program will enable students to research the career they are interested in

and work toward that career. Students will be helped to create goals for themselves and to work towards those goals (Bounds, 2006a).

The new program would allow students to take some classes online. Students work at different paces and abilities and providing a student a chance to complete a course in a shorter amount of time than other classmates would provide that student with more individualized opportunities. This plan would remedy the frustration stated by some teenagers (Bounds, 2006a).

The Superintendent of Education, Dr. Hank Bounds, presented a lecture about the new proposed program in Jackson, Mississippi. The proposed new set of curriculum will be implemented by each grade. The focus will be on the computer classes. In the seventh grade, the curriculum will be based on keyboarding, social and ethical issues in technology, communication and research tools, word processing, publishing, and presentation skills. A school-wide focus on parental involvement will be instituted.

School counselors will provide opportunities for parents to learn about Carnegie units needed to graduate as well as career interests. The career center will provide opportunities for students to learn about different career options and use different computer programs. Hopefully, this will help students to focus on their selected field of interest (Bounds, 2006b).

The new technology component in the eighth grade will be focused on applications, graphic design, networking, and problem solving and decision making using technology. Additionally, students will be provided the chance to take an online class. Students will be able to research career paths in the career center provided by the school district that may seem interesting to the student (Bounds, 2006b).

This new component includes students being assigned a mentor. The student and the mentor will have the opportunity to develop a relationship at school that will help with social problems. The counseling component for the eighth grade will be a meeting with each parent. The purpose of the counselor's meeting with each parent is to ensure the student will be on the right track in high school as far as classes are concerned. The counselor will work with the parents and students to outline classes to be taken in high school (Bounds, 2006b).

The ninth grade component of the new program will include a STEM Application. STEM is the acronym for science, technology, engineering, and mathematics. The STEM lab will focus on human services technology, financial, and economic technology, health care technology; environmental, agriculture, natural resource, and transportation technology; and science, technology, construction, manufacturing, and engineering technology and will include an individual project. Students in the STEM program will have the opportunity to receive dual credit for the STEM class and an online course (academic and vocational) taken during the class. The counseling aspect of the ninth grade is for the counselor, parent, and student to choose a career by the end of the school year. However, the student can always change paths in the future if he or she wants to. Each student will be assigned a mentor depending on the specific career path the student chooses (Bounds, 2006b).

Teachers will be equipped with professional development on the new program prior to integration. Professional development will be focused on providing tools for the teachers to increase rigor and relevance in the classroom. Curriculum will include teaching strategies for easy implementation in the classroom. Students who are targeted as possible

dropouts will be given the opportunity to catch up on courses by taking online classes. Students who might drop out will now have the opportunity to graduate with their class (Bounds, 2006b).

In 2007, the Mississippi Board of Education released a report that a priority will be placed on the Quality of Education Act of 2008 in funding Redesigning Education for the 21st Century Workforce in Mississippi. The program is currently being piloted in selected Mississippi schools. The news released reports that $18.3 million in extra funding for this program will be provided. The report indicates that this program will improve graduation rates and prepare students more adequately for the eventual workforce in which they will be entering (Bounds, 2006b).

Mississippi Dropout Previous Campaign: On the Bus

Dr. Hank Bounds and the Mississippi Department of Education have created a campaign to assist school districts with the crisis of dropouts. The campaign On the Bus was created as a dropout prevention program in 2007 when State Farm Insurance donated $1.5 million to aid in the prevention of dropout. This program has gained many businesses and corporations to assist in the plan (www.onthebus.ms).

There are three goals to the On the Bus campaign. The first goal is to increase the graduation rate by 50% over the next 7 years. The campaign started with the 2004-2005 graduating class. The graduation rate of the 2004-2005 graduating class was 62%. Mississippi's current graduation rate is 74%. The goal is to increase it to 85% by the year 2014. The state has determined benchmarks that must be met each year in order to achieve the goal. Fortunately, high schools are currently on track (Mississippi Education Quick Facts, 2008).

The second goal of the On the Bus campaign is to decrease the dropout rate by 50% by the year 2014. Mississippi currently has a dropout rate of 27%. This calculates to over 13,000 students each year (www.onthebus.ms). Part of that goal is to not only decrease the dropout rate but also to better prepare today's graduates with tools that will help them meet the challenges in today's workforce (Mississippi Education Quick Facts, 2008).

The third goal of the campaign is to reduce the high school truancy rate by 50%. Mississippi currently has a truancy rate of 32%. The Mississippi Department of Education would like to reduce the truancy rate to 16% by the year 2014.

The cost for Mississippi to support all dropouts is approximately $458 million each year (Blanton, 2008). The campaign aims to encourage Mississippi students to stay in school by focusing on it in the media. The On the Bus initiative has five television commercials and a radio advertisement that hope to target Mississippi's youth.

In January of 2008, the Mississippi Department of Education, State Farm, America's Promise Alliance, two students from each school district in Mississippi, and administrators joined together for the first of two meetings called Destination Graduation: Mississippi Teen Summit. The meeting was held at the state's capital, Jackson, at an area hotel. Students were given the opportunities to voice concerns and opinions about the crisis of dropout prevention. Teens met in groups to discuss what their school districts could do to ai in the fight for dropout prevention (Mississippi Leads the Nation in Addressing Dropout Prevention, 2008).

In February of 2008, the Mississippi Department of Education held a follow-up meeting called Destination Graduation: Mississippi Adult Summit. Area businesses,

community leaders, parents, and church leaders gathered to discuss how they could implement the dropout strategies in each community. The summit was the first in the nation to gather and address the issue of dropout prevention. State Farm and America's Promise Alliance hope to hold summits in every state in the near future. The keynote speaker was Alma Powell, chair to America's Promise Alliance and wife to General Colin Powell. Mrs. Powell commended Mississippi on the initiatives the State Department of Education has taken to lead the nation in dropout prevention (Students to Gather for Dropout Summit, 2007).

At the summit, the Superintendent of Education, Dr. Hank Bounds, charged each student, teacher, principal, superintendent, and school district to put their minds together to assist in dropout prevention. He charged each school district to submit a Dropout Prevention Plan that will outline what the school district plans to do to aid in dropout prevention ("Students to Gather for Dropout Summit," 2007).

One company that has joined forces with the Mississippi Department of Education is Nissan North America. The closest plant is located just north of Jackson in Canton, Mississippi. In April of 2008, Nissan donated $100,000 to Mississippi's public schools. The money will be divided between schools located around the Nissan plant in Canton. Nissan hopes that this gift will encourage other businesses to join in and support the dropout prevention plan (Blanton, 2008).

Many consequences, as reported in this chapter, result in low graduation rates. Several factors influence graduation rates, as discussed. Discovering the factors that increase graduation rates is extremely important. The purpose of this study is to determine whether significant predictors of graduation rates exist. Predictors of graduation rates will

be researched based on several factors; however, the study will determine primarily whether leadership style of the principal, as evaluated by teachers, is a significant predictor of graduation rates in the state of Mississippi.

Theoretical Framework

The type of leader an organization has can affect the level of performance of the organization. The theoretical framework used for this research evolved from the work of James McGregor Burns in 1973. It was later enhanced by Bernard Bass and Bruce Avolio in 1985. Transformational and transactional leadership occurs when leaders interact with followers at many different levels (Bass & Avolio, 1994)

The theory of Transformational Leadership, a development from transactional leadership, is one that is used in education and many other organizations (Bass & Avolio, 1994). Transactional leadership is not as effective as transformational leadership (Wilcox & Rush, 2003). The lowest level of the transactional leader is concerned only with benefitting himself or herself. This type of leader is difficult to work and communicate with. This leader works for himself or herself and aims for personal advancement. The second model of leadership is defined as the Team Player. This type of leader is concerned with the team but also with how he or she is viewed by the team. This relationship, observed at a school district between a principal and group of teachers, is a give-and-take relationship. The leader will aim to please the wants of the group as long as the group will follow the leader. This leader aspires to make decision that will please the group and not bring disagreement to the group (Bass & Avolio, 1994).

The third theory of leadership is considered the most effective—the transformational leader. This type of leader is concerned with always doing the right thing.

This leader can communicate the needs, goals, and mission of the school district and lead the teachers in accomplishing them (Bass & Avolio, 1994).

Principals who lead by transformational leadership can encourage his or her teachers to see their work from a new viewpoint, one that is the goal and mission of the school district. They can also stimulate their teachers to accomplish work that they thought they could not originally accomplish. Teachers who are led by a transformational leader work as a team to promote the needs of the students (Bass & Avolio, 1994).

There are four dimensions to the transactional-transformational leader. The first dimension, and the least effective, is characterized as laissez-faire (LF) leader. This leader is passive, ineffective, and avoids leadership altogether. The next dimension is one step closer to being a transformational leader and defined as the management-by-exception (MBE) leader. The next element of leadership is the Contingent Reward (CR) leader. This leader is somewhat effective but not as effective as the transformational leader who displays all elements of leadership as characterized in the following I's:

- Idealized influence - this is displayed when leaders become a model of leadership that employees begin to appreciate, respect, and have a belief in. This leader puts the needs of the group ahead of his or her needs. This leader always does what is right, no matter what.
- Inspirational motivation - this is exhibited when leaders can motivate followers to accomplish the expectations of the goals and vision of the team by inspiring them with relevant work that is beneficial to the group. The high morale of the group is evident.

- Intellectual stimulation - this is shown when leaders inspire followers to be creative by continued questioning, in a positive way, of actions. This leader uses shared decision making when making decisions for the group.
- Individualized consideration - this is demonstrated when the leader makes an invested interest in the needs of each employee; the leader truly cares about the effectiveness and individuality of each person. This leader intently listens when employees speak (Bass & Avolio, 1994).

For purposes of research, the different types of leaders are characterized into three groups. (a) The transformational leader, (b) the transactional leader, and (c) the laissez-faire leader. The transformational leader, the most effective, is defined as three components:

- Idealized Influence (Charisma)/Inspirational Motivator - leaders exhibit conviction in what they believe in, gain trust from followers, always to what is right and ethical, are admired for what they stand for, create high standards, are optimistic, and are encouraging to followers.
- Intellectual Stimulation - raise questions to old traditions by inspiring follows to be creative in how they solve problems and express themselves.
- Individualized Consideration - care about followers as individuals by listening to them and taking the time to teach and coach them (Bass, 1997).

(b) The transactional leader, one who is still effective, but not as effective as transformational leaders, can be characterized into three components:

- Contingent Reward - bargains with followers to each help each other out, exchange support systems in order to accomplish goals.

- Active management by exception - observes and documents progress of followers and intervenes when there is a problem.
- Passive management by exception - observes and documents progress of followers but fails to intervene with the occurrence of a problem (Bass, 1997).

(c) The last type of leader is the Laissez-Faire leader. This type of leader is ineffective and avoids all types of responsibility (Bass, 1997).

The Multifactor Leadership Questionnaire

To measure leadership styles, the Multifactor Leadership Questionnaire was created in 1980 and later revised to a shorter version: Multifactor Leadership Questionnaire (form 5X). The questionnaire was first administered to Army officers who were rating their direct superior officer on a scale ranging from 0 to 4. The results were analyzed and findings suggested three major types of leaders: transformational, transactional, and laissez-faire (Bass, 1997).

One study using the Multifactor Leadership Questionnaire found that the majority of a selected number of schools had transformational leaders. The schools selected for the study included low performing schools and high performing schools. The study was conducted in the state of Ohio with schools that were classified as emerging schools. Emerging schools were defined as showing growth through the Performance Index within a 3-year period (Konkle, 2007)

In a comparison study using the Multifactor Leadership Questionnaire, results indicated there was a large number of faculty at a high performing school that were rated as transformational leaders. Teachers, department heads, and principals rated themselves using the Multifactor Leadership Questionnaire. In the same study, teachers rated their

principals using another form of the Multifactor Leadership Questionnaire; the results were different. Teachers rated their current principals lower in the transformational factor than principals rated themselves. Teachers and principals with a high number of years of experience were rated lower in the non-leader factor (Taintor, 2007). This suggests that the longer a teacher is at a school the more leadership abilities he or she tends to possess.

In the study stated above, there were no significant differences between males and females concerning leadership scores (Taintor, 2007). This suggests that, although in the past, leadership positions were mostly undertaken by males, there is no difference between the leadership abilities between males and females.

In a study conducted by Webb (2007), 223 vice presidents from 104 Christian colleges and universities were surveyed to determine leadership styles using the Multifactor Leadership Questionnaire (form 5x). The leaders completed the survey in order for researchers to obtain one of the three leadership styles: transformational, transactional, and laissez-faire. The results indicated that a large proportion of the participants displayed the characteristics of a transformational leader. These leaders had a natural ability to lead through confidence and assertiveness. The leaders understood the importance of recognizing followers' exceptional abilities and needs. They were able to recognize the strengths of their followers and build upon them. In the conclusions of the study, the author summarized that leaders of a large proportion of leaders from the selected population from successful colleges displayed characteristics of transformational leadership (Webb, 2007).

CHAPTER III

METHODOLOGY

The purpose of this study was to explore the possible predictors of the graduation rate in Mississippi. Analysis determined whether there are significant predictors of graduation rate in the public high schools in the state of Mississippi. Identification of significant predictors is important to school leaders in public high schools seeking to increase the graduation rates.

Participants

The population of this study included public school districts in the state of Mississippi with only one high school as listed by the Mississippi High School Athletic Association (Appendix A). For the purpose of this study, high schools were defined as schools containing at least ninth through twelfth grades. Schools whose principals have been at the school for less than one full school year were excluded from the study. Archival data are available for all high schools on the Mississippi State Department of Education website and the Mississippi High School Athletic Association website for most of the variables; however, data were collected from each school using the Multifactor Leadership Questionnaire for the leadership variable.

Research Question

Is there a relationship between a school's reported average daily attendance, Algebra 1 score, teacher salary, socioeconomic status, eighth grade MCT scores in math and language arts, percentage of teachers with advanced degrees, Adequate Yearly Progress, school size, principal leadership style, and graduation rate?

The dependent variable in the study is the graduation rate for each school district for the 2007-2008 school year. Graduation rates for the 2007-2008 school year were retrieved from the Mississippi State Department of Education Office of Research and Statistics. Data are available online through the Mississippi Assessment and Accountability Reporting System. The independent variables used to conduct the study consisted of: attendance, Algebra I scores, teacher salary, socioeconomic status, eighth grade standardized test scores, teachers with advanced degrees, Adequate Yearly Progress, size of school, and principal leadership style.

Hypotheses

H1: Does attendance have a significant positive relationship with high school graduation rate in the state of Mississippi?

H2: Do Algebra I scores have a significant positive relationship with high school graduation rate in the state of Mississippi?

H3: Does teacher salary have a significant positive relationship with high school graduation rate in the state of Mississippi?

H4: Does socioeconomic status have a significant negative relationship with high school graduation rate in the state of Mississippi?

H5: Do eighth grade Standardized Test Scores have a significant positive relationship with high school graduation in the state of Mississippi?

H6: Does the percentage of teachers with advanced degrees have a significant positive relationship with high school graduation rate in the state of Mississippi?

H7: Does Adequate Yearly Progress have a significant relationship with high school graduation rate in the state of Mississippi?

H8: Does school size have a significant negative relationship with high school graduation rate in the state of Mississippi?

H9: Does principal leadership style have a significant relationship with high school graduation rate in the state of Mississippi?

Instrumentation

The Multifactor Leadership Questionnaire was created in 1980 and later revised to a shorter version: Multifactor Leadership Questionnaire Rater Form (Appendix B). The revised version was used in this study, consists of 45 items (5X Short), and takes approximately 20 minutes to complete (Avolio & Bass, 1994). The Multifactor Leadership Questionnaire Rater Form (5X Short) (Avolio & Bass, 1985-2004) has been found to measure three leadership factors which include transformational, transactional, and laissez-faire, each of which was used for this research project. The rater form of the Multifactor Leadership Questionnaire (form 5X) was used in this study. Teachers indicated their principal's leadership style by rating statements on a scale of 0-4.

Bernard Bass originally tested the results of the Multifactor Leadership Questionnaire on 198 Army officers. Factor analysis revealed six factors which included Charismatic/Inspirational, Intellectual Stimulation, Individualized Consideration, Contingent Reward, Management by Exception and non-leadership. Bass later suggested that Management by Exception should be spilt into two factors: Active and Passive (Avolio, Bass, & Jung, 1999). The short form Multifactor Leadership Questionnaire (form 5X), which was revised in 2004 (Avolio & Bass, 1985-2004) has higher reliability and validity than the original Multifactor Leadership Questionnaire (Avolio et al., 1999).

Procedures for Obtaining Data

Upon approval of the Institutional Review Board (Appendix C), this study sought to discover significant predictors of high school graduation rates. The following data were gathered from the Mississippi State Department of Education's Office of Research and Statistics. Data are available online through the Mississippi Assessment and Accountability Reporting System. Because only the school districts that consist of one high school were used in this research, district and school level data were used.

Attendance - This was reported as the average percentage of students who attend school each day that is provided for each school district.

Algebra I scores - was measured using the average score for the Algebra 1 Subject Area Test.

Teacher salary - This was reported as the mean salary of teachers for each school district.

Socioeconomic status - was measured by the percentage of students who qualify for free and reduced lunch.

Eighth grade MCT scores - Two scores were reported for eighth grade test scores. A mean scale score for reading/language arts and a mean scale score for math was reported using the Mississippi Curriculum Tests results.

Percentage of teachers with advanced degrees - was measured as the percentage of teachers who have obtained a professional degree beyond a bachelor's degree.

Adequate yearly progress - The State Department of Education determines the level of progress of each school and reports one of three results: the school did not meet

AYP, the school met AYP, or the school exceeded AYP. This variable was treated as a categorical variable.

The following data were retrieved from the Mississippi High School Athletic Association website:

School size - the school rating as assigned by the Mississippi High School Athletic Association was used to categorize schools into five sizes. Every school in Mississippi is assigned a number from 1A through 5A which represents the size of the school for athletic participation. This variable will be a categorical variable.

The following data were gathered from the results of the Multifactor Leadership Questionnaire (form 5X):

Principal's leadership styles - The results of the surveys indicated the principals' leadership style, as viewed by teachers.

School principals were contacted to gain permission to conduct research in the high school. Principals' email addresses were obtained from the Mississippi State Department of Education website. The email was sent to principals (Appendix D) to ask for permission to contact the high school librarian. The high school librarians were sent a packet including a letter (Appendix E) explaining the purpose of the study and directions to participate in the study. The letter described the contents of the packet. The packet included the letters to the five teachers (Appendix F) and five self-addressed letters that were distributed to the teachers in the high school. Each of the five letters contained the Multifactor Leadership Questionnaire Rater Form (form 5X-Short) and a letter with instructions for completing and returning the questionnaire. The contact information of the researcher was given if the participants had any questions.

After 2 months of contacting school principals and sending out questionnaires, the researcher called each school district that had not responded by email. Phone numbers were gained from the Mississippi State Department of Education website. Permission was granted over the phone to participate in the study. The purpose of this procedure was to include more schools in the research study.

Confidentiality of the respondents of the MLQ was maintained by omitting a place for the teachers to place their name on the questionnaire. Teachers were asked to not add any identifying information to the questionnaire. However, each questionnaire was coded in numerical, alphabetic order (Appendix G) by school district for the purpose of matching the questionnaire to the corresponding school districts. After analysis was conducted, the questionnaires were destroyed.

The researcher scored the results as indicated in the MLQ manual. This variable was treated as a categorical variable. The scores of all the surveys returned from each school were averaged in order to obtain one leadership style for each school's principal. The resulting scores provided one of the following leadership styles:

1. Transformational - consists of the following three components: a) Charisma/Inspirational, b) Intellectual Stimulation, and c) Individualized Consideration.
2. Transactional - consists of the following three components: a) Contingent Rewards, b) Active Management by Exception, and c) Passive Management by Exception.
3. Laissez-Faire

Data Analysis

All data were entered and analyzed in SPSS version 16. Multiple regression was used to test all of the hypotheses. Descriptive and frequency analyses were run on the data before analysis begins. Analysis utilized simultaneous regression. Assumptions and diagnostics were tested in order to determine if the data were normal. Missing data were left as missing. Outliers were examined on a case-by-case basis by sorting each variable in ascending and descending order.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to examine possible predictors of graduation rates in Mississippi. This study included 10 independent variables and one dependent variable. The independent variables consisted of average daily attendance, algebra I scores, teacher salary, socioeconomic status (as expressed in the percentage of students eligible for free and reduced lunch within a school), eighth grade math MCT scores, eighth grade language MCT scores, the number of teachers with advanced degrees, the school's outcome of Adequate Yearly Progress, school size, and principal leadership style. The dependent variable was graduation rate.

For the purpose of this study, the first eight hypotheses were combined and one statistical test was conducted to test for any significant predictors. Multiple regression was conducted for analysis. The last hypothesis was to test for significant differences based on principal leadership style. However, due to the low return rate, no statistical test could be conducted. The schools are described below.

Description of the Sample

The sample was chosen from the population of high schools in Mississippi. A total of 100 schools were included in the first analysis. These schools included a variety of different graduation rates. Data were gathered from different regions across the state of Mississippi. The schools included in the study had a mean graduation rate of 73.4%, which is comparable to the overall mean graduation rate in Mississippi. A total of 18 schools returned the Multifactor Leadership Questionnaire Rater Form (5X Short).

Descriptive Statistics

Frequencies were conducted on the nominal variables and are included in Tables 1 and 2. Descriptive statistics were conducted on the continuous variables and are included in Table 3. For interpretation purposes, the independent variable average salary was divided by 1,000. After descriptive statistics were run, the nominal variables were recoded before further analysis. The nominal variables that were recoded were Adequate Yearly Progress and School Size.

Tests of the Hypotheses

For the purpose of this research, the first eight hypotheses were grouped together. One test, Multiple Regression, was conducted to determine whether significant differences existed for the first eight hypotheses. The eight hypotheses are restated below.

H1: Does attendance have a significant positive relationship with high school graduation rate in the state of Mississippi?

H2: Do Algebra I scores have a significant positive relationship with high school graduation rate in the state of Mississippi?

H3: Does teacher salary have a significant positive relationship with high school graduation rate in the state of Mississippi?

H4: Does socioeconomic status have a significant negative relationship with high school graduation rate in the state of Mississippi?

H5: Do eighth grade Standardized Test Scores have a significant positive relationship with high school graduation in the state of Mississippi?

H6: Does the percentage of teachers with advanced degrees have a significant positive relationship with high school graduation rate in the state of Mississippi?

Table 1

Frequencies for Adequate Yearly Progress

		Frequency	Percentage
Valid			
	Did Not Meet AYP	53	52
	Met AYP	48	48
Total		100	100

Table 2

Frequencies for School Size

		Frequency	Percentage
Valid			
	1A	6	6.0
	2A	19	19.0
	3A	28	28.0
	4A	31	31.0
	5A	15	15.0
Missing	System	1	1.0
Total		100	100.0

Table 3

Description of Variables

	Mean	Std Deviation
Graduation Rate	72.99%	9.24
Algebra I Scores	651.40	5.28
Amount of Teachers with Advanced Degrees	36.09%	8.84
Percentage of Students Eligible for Free/Reduced Lunch	74.97%	17.62
Average Daily Attendance	95.03%	3.05
Math MCT Scores	147.57	4.93
Language MCT Scores	145.86	3.90
Average Annual Salary	$40,450.00	2,470.00

H7: Does Adequate Yearly Progress have a significant relationship with high school graduation rate in the state of Mississippi?

H8: Does school size have a significant negative relationship with high school graduation rate in the state of Mississippi?

Assumptions

The assumption of homoscedasticity was met. After graphing unstandardized predicted values and unstandardized residuals, variance is evenly distributed across the graph. Normality of residuals was analyzed by calculating a pseudo z with unstandardized residuals. The calculation for skewness is -1.3. The calculation for kurtosis is .1. The assumption of skewness and kurtosis was met.

Tolerance levels suggested collinearity was present for math scores. Math scores showed a negative relationship, which is not consistent with the literature, and, therefore, math was removed from the model.

Analysis

The coefficients table determined that two variables were significant: average daily attendance and the amount of teachers with advanced degrees. Predictor variable average daily attendance was found to be significant at $p = .01$. Predictor variable amount of teachers with advanced degrees was found to be significant at $p = .02$ (Table 4).

Hypothesis 1 was supported; average daily attendance has a significant positive relationship with high school graduation rate in the state of Mississippi. The higher a school's average daily attendance, the higher a high school's graduation rate.

Hypothesis 6 was supported; the percentage of teachers with advanced degrees had a significant positive relationship with high school graduation to be in the state of

Table 4

Coefficients Table

Model	Unstandardized Coefficient	Beta	Significance
Constant	-222.35		
Average Daily Attendance	.88	.26	.01
Algebra I Scores	.30	.17	.18
Average Salary	.27	.07	.53
Percentage of Students Eligible for Free/Reduced Lunch	-.09	-.17	.31
Language MCT Scores	.02	.01	.96
Amount of Teachers with Advanced Degrees	.27	.26	.02
Adequate Yearly Progress	.88	.26	.54
School Size 1A	5.90	.16	.11
School Size 2A	-1.32	-.06	.58
School Size 3A	-3.34	-.17	.12
School Size 5A	-3.29	-.13	.20

Mississippi. The more teachers with advanced degrees, the higher the high school's graduation rate. Average daily attendance had the greatest impact of the two variables. Algebra I scores and math MCT scores were approaching significance.

Hypotheses 2 through 5 and 7 and 8 were rejected. For Hypothesis 2, algebra I scores had no relationship with high school graduation rate in the state of Mississippi. For Hypothesis 3, teacher salary had no positive relationship with high school graduation rate in the state of Mississippi. For Hypothesis 4, socioeconomic status had no significant negative relationship with high school graduation rate in the state of Mississippi. For Hypothesis 5, eighth grade standardized test scores had no significant positive relationship with high school graduation rate in the state of Mississippi. For Hypothesis 7, Adequate Yearly Progress had no significant relationship with high school graduation rate in the state of Mississippi. For Hypothesis 8, school size did not have a significant negative relationship with high school graduation rate in the state of Mississippi.

Of the 100 schools included in the sample, there were 18 schools that returned the Multifactor Leadership Questionnaire Rater Form (5X Short). The scores on the Multifactor Leadership Questionnaire Rater Form (5X Short) were averaged in order to obtain one score for each school. Results indicated that 13 of the 18 schools had a principal who was scored as a Transformational Leader. Sub-scores for the Transformational Leaders were calculated for further investigation.

Sub-scores indicated that all Transformational Leaders were an Inspirational Leader. Those 13 schools had an average graduation rate of 76.25%. There were two schools that reported having a Transactional Leader. Sub-scores indicated that one school had a Contingent Reward Leader and one school had a Passive Management by

Exception Leader. The average graduation rate of schools that had a Transactional Leader was 74%. Three schools were reported as having a Laissez-Faire Leader. The average graduation rate of schools that had a Laissez-Faire Leader was 82.8%.

CHAPTER V

CONCLUSIONS

Purpose

The purpose of this study was to investigate public high schools in the state of Mississippi to determine characteristics that would help explain or predict their graduation rates. The goal was to provide beneficial information to public high schools in the state of Mississippi that would help to increase graduation rates.

Summary of the Procedures

The researcher collected data from 100 high schools in the state of Mississippi. Data were collected from archival data retrieved from the Mississippi State Department of Education Office of Research and Statistics and the Multifactor Leadership Questionnaire (5X Short). The Multifactor Leadership Questionnaire (5X Short) included three factors—transformational, transactional, and laissez-faire. The transformational leader consists of three subscores which include inspirational, intellectual stimulation, and individualized consideration. The transactional leader consists of three subscores which include contingent reward, active management by exception, and passive management by exception.

Data for all variables were collected by the researcher from August 2008 to April 2009. The researcher gathered archival data from the Mississippi State Department of Education Office of Research and Statistics in order to test Hypotheses 1 through 6. Multiple linear regression was used to test for significant differences. The statistical package SPSS version 16 was used to conduct the statistical tests.

This researcher scored the Multifactor Leadership Questionnaire (5X Short) using a scoring guide ordered from the authors of the survey. Analysis of variance could not be used due to the low response rate and small group size. However, data were described using descriptive statistics.

Conclusions

1. A significant positive relationship existed between a school's average daily attendance and high school graduation rate in the state of Mississippi. This significance suggests that schools that focus on increasing the average daily attendance of the high school may increase graduation rates.

2. A significant relationship did not exist between a school's algebra I scores and high school graduation rate in the state of Mississippi.

3. A significant relationship did not exist between a school's average teacher salary and high school graduation rate in the state of Mississippi.

4. A significant relationship did not exist between socioeconomic status and high school graduation rate in the state of Mississippi.

5. A significant relationship did not exist between a school's standardized test scores and high school graduation rate in the state of Mississippi.

6. A significant relationship existed between the school's percentage of teachers with advanced degrees and high school graduation rate in the state of Mississippi.

7. A significant relationship did not exist between the school's adequate yearly progress and high school graduation rate in the state of Mississippi.

8. A significant negative relationship did not exist between a school's size and high school graduation rate. This significance suggests that smaller schools have higher graduation rates in the state of Mississippi.

Discussion

A high school diploma is needed for a student to be successful in the labor force in the United States (Hall, 2007). This study sought to find relationships that existed between graduation rates and other predictors. This study found average daily attendance and school size to be significant predictors of high school graduation rates.

Finding that the average daily attendance results in a high chance for the student to graduate is not surprising. Attending students would profit more by being in the classroom learning and studying rather than away from school for various reasons.

The percentage of teachers with advanced degrees was also significant. This suggests that schools that have more teachers with a master's degree or higher have higher graduation rates. The knowledge teachers gain in graduate school may help to improve their instruction in the classroom.

Although some researchers have discovered a correlation between higher algebra scores and a higher graduation rate, this research did not support those findings. More research should be conducted to see whether, in fact, higher scores in algebra I and MCT math scores result in higher graduation rates.

The results indicating that higher salaries among teachers do not contribute to a higher rate of graduation may indicate that salary is not as significant as believed. The status of the AYP had no relationship with rate of graduation. This is also a disappointing finding, because AYP is a national initiative of *No Child Left Behind* with much time,

energy, and money going into this effort (*No Child Left Behind Act of 2001*). Since adequate yearly progress focuses on the growth of a school, results of this study indicate that growth might not be affecting students as much as believed.

Although previous studies suggest a negative relationship between socioeconomic status and high school graduates rates, this current study did not find a significant relationship. Perhaps a significant relationship would be found with a larger sample size.

This current research did not find a significant negative relationship between a school's size and high school graduation rate. In a study conducted by Bill and Melinda Gates (Evan et al., 2006), research suggested that smaller schools had more positive teacher/student relationships that resulted in an increased graduation rate. Perhaps teachers in Mississippi, with their southern hospitality, do not need small schools to enhance positive teacher/student relationships. The size of the school, in Mississippi, is not significant.

Limitations

This study had the following limitations:

1. Data collection of the Multifactor Leadership Questionnaire was limited to the teacher's perception of the principal's leadership style, not the observed or self-reported leadership style of the principal.

2. The sample size of the principal leadership style was small due to the low response rate of the Multifactor Leadership Questionnaire (5X Short).

3. The sample was limited to school districts that included only one high school due to the limitations of the reporting system of the Mississippi Department of Education, which reported graduation rates by district.

Recommendations for School Districts

Because of the positive link between attendance and high school graduation rates, school districts should focus on increasing the average daily attendance of their high school. School leaders should encourage attendance through incentive programs that would persuade students to attend school. Information should be provided to students and parents on the benefits of good attendance and the importance of adhering to the attendance policies of the school district highlighting the fact that students with good attendance are more likely to graduate.

Teachers should reinforce attendance policies and encourage the incentive programs in their classrooms. Teachers should also provide meaningful learning opportunities that encourage students to come to class. If students are not following the attendance policies of the school, teachers should refer them to support services for assistance.

Since the results of this study indicated that school districts with more teachers with advanced degrees have higher graduation rates, incentives should be provided for teachers who want to continue their education. This can be done in several ways. School districts can provide supplements to teachers to assist in paying for tuition. School administrators can also work with teachers when returning to school concerning schedules. Some college classes are offered at times that might overlap with school hours. School administrators can work out a compromise that allows the teacher to attend the necessary classes.

During difficult economic times, teachers might find it difficult to return to school. Universities can provide incentives through scholarships to teachers who are

returning to graduate school. Universities can also offer classes that would meet the scheduling needs of a teacher. Since teachers are busy teaching during the day, universities can offer classes during the summer, on weekends, at night, and online. Giving teachers multiple opportunities to attend class would hopefully encourage more teachers to return to graduate school.

Recommendations for Future Research

Based on results from this study, several recommendations for future research arise:

1. Replicate the study gaining responses from all principals in the state of Mississippi. In this study, the response rate of the Multifactor Leadership Questionnaire (5X Short) was 18%. It is recommended that leadership styles of principals be identified for all high schools in the state of Mississippi and the study be replicated.

2. Socioeconomic status was found not to be a factor in graduation rates. Because of the homogenity of schools in this study, further studies need to be conducted comparing schools with different socioeconomic profiles.

3. This research did not find any significant differences in graduation rates and algebra I scores, eighth grade standardized test scores, and school size. Since previous studies suggested that all of these variables positively affected graduation rates, further studies should continue to investigate these connections.

4. Since the future of how students will be able to properly function in today's society rests on how well they do in school, any type of research that can determine how to assist students to stay in school and graduate will be well worth the effort.

5. High school graduation rates are provided for each school district in Mississippi. It is recommended that graduation rates be identified for all high schools in the state of Mississippi in order for analysis to be conducted on each high school, not just each school district.

APPENDIX A

LIST OF HIGH SCHOOLS USED IN THE STUDY

School Code	School	School Size
1	Aberdeen High	3A
2	Ackerman High	2A
3	Amite County High	3A
4	Amory High	1A
5	Ashland Hiddle/High	2A
6	Baldwyn High	4A
7	Bay High	2A
8	Bay Springs High	5A
9	BC Hattiesburg High	5A
10	Biloxi High	3A
11	Booneville Mid/High	4A
12	Brookhaven High	4A
13	Canton Public High	2A
14	Coahoma AHS	3A
15	Charleston High	4A
16	Clarksdale High	5A
17	Clinton High	2A
18	Coahoma Co High	1A
19	Coffeeville High	3A
20	Collins High	5A
21	Columbus High	3A
22	Cornith High	3A
23	Coumbia High	3A
24	Crystal Springs High	1A
25	Drew High	1A
26	Durant Public School	2A
27	Enterprise High	1A
28	Falkner High	4A
29	Forrest County AHS	2A
30	Forrest High	3A
31	Franklin High	4A
32	Gentry High	5A
33	George County High	3A
34	Greene County High	5A
35	Greenville Weston Hig	4A
36	Greenwood High	5A
37	Grenada High	5A
38	Gulfport High	5A
39	Hancock High	3A
40	Hazelhurst High	3A
41	Heidelberg High	2A
42	Hinds County AHS	3A
43	Holly Springs High	3A
44	Houston High	3A
45	Humphreys Co High	4A
46	Itawamba AHS	4A
47	Itawamba High	3A
48	Jefferson Co High	2A
49	Kemper Co High	4A
50	Kosciusko Sr High	4A
51	Lafayette High	4A

52	Laurel High	2A
53	Leland High	4A
54	Long Beach Sr High	2A
55	Lumberton High	4A
56	Mccomb High	3A
57	Morton High	3A
58	MS Palmer High	2A
59	N Forrest High	5A
60	Natchez High	4A
61	New Albany High	2A
62	Newton Co High	2A
63	Newton high	3A
64	North panola High	3A
65	North Pik Sr High	4A
66	Noxube Co High	5A
67	Ocean Springs High	1A
68	Okolona High	4A
69	Oxford High	3A
70	Pass Christian High	4A
71	Pearl High	4A
72	Pearl R Central High	3A
73	Perry Central High	5A
74	Petal High	2A
75	Philadelphia High	4A
76	Pontotoc High	4A
77	Poplarville Jr Sr High	4A
78	Port Gibson High	4A
79	Quitman High	3A
80	Raleigh High	3A
81	Ripley High	3A
88	Rosa Fort High	3A
89	Senatobia Jr Sr High	1A
90	Shaw High	2A
91	Simmons High	2A
92	South Delta High	5A
93	South Panola High	3A
94	South Pike Sr High	5A
95	Starkville High	4A
96	Stone High	4A
97	Tishomingo Co High	5A
98	Tupelo High	2A
99	Union High	2A
100	W Bolivar High	4A
101	Wane Co High	2A
102	Water Valley High	4A
103	West Point High	2A
104	West Tallahatchie Hig	3A
105	Wilkinson Co High	3A
106	Winona Secondary	4A
107	Yazoo City High	4A
	Yazoo Co High	

APPENDIX B

MULTIFACTOR LEADERSHIP QUESTIONNAIRE

www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material;

Instrument: ***Multifactor Leadership Questionnaire***

Authors: ***Bruce Avolio and Bernard Bass***

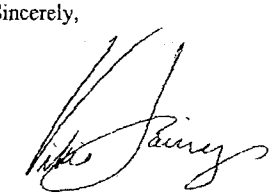
Copyright: ***1995 by Bruce Avolio and Bernard Bass***

for his/her thesis research.

Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,



Vicki Jaimez
Mind Garden, Inc.
www.mindgarden.com

Example of Multifactor Leadership Questionnaire Rater Form (5X-Short)

MLQ **Multifactor Leadership Questionnaire**
Rater Form (5x-Short)

Name of Leader: _____ Date: _____

Organization ID #: _____ Leader ID #: _____

This questionnaire is to describe the leadership style of the above-mentioned individual as you perceive it. Please answer all items on this answer sheet. **If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.** Please answer this questionnaire anonymously.

IMPORTANT (necessary for processing): Which best describes you?

___ I am at a higher organizational level than the person I am rating.
___ The person I am rating is at my organizational level.
___ I am at a lower organizational level than the person I am rating.
___ I do not wish my organizational level to be known.

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits the person you are describing. Use the following rating scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

THE PERSON I AM RATING. . .

1.	Provides me with assistance in exchange for my efforts	0	1	2	3	4
2.	Re-examines critical assumptions to question whether they are appropriate	0	1	2	3	4
3.	Fails to interfere until problems become serious	0	1	2	3	4
4.	Focuses attention on irregularities, mistakes, exceptions, and deviations from standards	0	1	2	3	4
5.	Avoids getting involved when important issues arise	0	1	2	3	4

APPENDIX C

INSTITUTIONAL REVIEW BOARD APPROVAL

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Institutional Review Board

118 College Drive #5147
Hattiesburg, MS 39406-0001
Tel: 601.266.6820
Fax: 601.266.5509
www.usm.edu/irb

HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: **29020304**
PROJECT TITLE: **Influences and Predictors of High School Graduation Rates**
PROPOSED PROJECT DATES: **10/15/08 to 10/15/09**
PROJECT TYPE: **Dissertation or Thesis**
PRINCIPAL INVESTIGATORS: **Donna R. Holden Chiasson**
COLLEGE/DIVISION: **College of Education & Psychology**
DEPARTMENT: **Educational Leadership & Research**
FUNDING AGENCY: **N/A**
HSPRC COMMITTEE ACTION: **Expedited Review Approval**
PERIOD OF APPROVAL: **02/03/09 to 02/02/10**

Lawrence A. Hosman, Ph.D.
HSPRC Chair

2-6-09
Date

APPENDIX D

LETTER TO PRINCIPALS

Dear Principal of _____ High School,

My name is Rebekah Chiasson. I am a doctoral student in the Educational Leadership and Research program at The University of Southern Mississippi. I have worked in the public school system for seven years and have a passion for students and learning. I am requesting permission to conduct research in your high school in order to obtain data for all the high schools in Mississippi in the hopes of finding characteristics that influence graduation rates.

I am requesting permission from you to contact the librarian at your school in order for him/her to distribute questionnaires to 5 teachers in your high school. The teachers will complete an established questionnaire that will help identify characteristics that influence graduation rates. For more information on the survey please visit www.mindgarden.com.

Your participation in this study is strictly on a voluntary basis. You are not required to participate. It is important for you to understand that I will preserve the anonymity of every school and teacher participating in this study. No names will be used. This study is investigating leadership style, not individual schools. If you would like the results of this study shared with you please indicate that in your reply message.

If you are willing to grant permission to conduct research in your district please reply to this email with contact information on the High School Librarian in your building. Please indicate how many years you have been employed in your current position. I will contact him/her for further research.

Thank you,

Rebekah Chiasson
Doctoral Student, Educational Leadership and Administration
The University of Southern Mississippi
601.310.3256 (Cell)

APPENDIX E

LETTER TO HIGH SCHOOL LIBRARIANS

Dear Librarian of _____ School District:

My name is Rebekah Chiasson, I am a doctoral student in the Educational Leadership and Administration program at The University of Southern Mississippi. I have worked in the public school system for seven years and have a passion for students and learning. I am requesting your participation in a research project that will help in determining possible high school characteristics that will help increase the graduation rates in Mississippi. My goal is to collect data from high schools in Mississippi that will, in the future, help school districts increase graduation rates. There is also an incentive, described below, for you!

Enclosed you will find five sealed envelopes labeled teacher one through five. Please distribute these five envelopes to five teachers in your high school. Please be sure to include a teacher that fits into each of the following categories:
□Male/Female
□Less than 10 years teaching experience/more than 10 years teaching experience
□Math teacher/science teacher/social studies teacher/ English teacher

Please do not inform the principal of the teachers who were randomly selected. There will be clear instructions for the teachers within each of the sealed envelopes. By doing this, you are helping protect the integrity of the study.

If you have questions, please call me. Thank you for your cooperation. You will be entered into a drawing for a $50 Wal-Mart card when questionnaires have been returned. Thanks again for participating and contributing to the improvement of the educational system of today's students.

Sincerely,

Rebekah Chiasson

Doctoral Student, Educational Leadership and Administration
The University of Southern Mississippi
601.310.3256 (Cell)

"This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820."

APPENDIX F

LETTER TO TEACHERS

Dear Teachers,

My name is Rebekah Chiasson. I am a doctoral student in the Educational Leadership and Research program at The University of Southern Mississippi. I am conducting research to obtain data for all the high schools in Mississippi in the hopes of finding characteristics that influence graduation rates. Our state and nation is in a crisis concerning graduation and drop out rates. This study is a questionnaire for teachers to complete in order for me to determine the leadership style of your current principal.

Your principal has been contacted and has agreed to allow me to ask your permission to participate in this study. Your participation in this study is strictly on a voluntary basis. Your principal will not know that you participated in this study. You are not required to participate. It is important for you to understand that I will preserve the anonymity of every school and teacher participating in this study. No names will be used. This study is investigating leadership style, not individual schools.

Please complete the enclosed survey. You are rating your current principal's leadership characteristics. This instrument should take approximately 20 minutes to complete. Please return the surveys in the self-addressed stamped envelope. The code number on each form is for statistical analysis and does not compromise anonymity. The completion of this survey is your consent to use the information in the study.

Thank you for your help in this study, it is greatly appreciated. If you have any questions please feel free to call.

Sincerely,

Rebekah Chiasson
Doctoral Student, Educational Leadership and Administration
The University of Southern Mississippi
601.310.3256 (Cell)

"This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820."

APPENDIX G

CODING OF HIGH SCHOOLS

School Code	School	School Size
1	Aberdeen High	3A
2	Ackerman High	2A
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4	Amory High	1A
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6	Baldwyn High	4A
7	Bay High	2A
8	Bay Springs High	5A
9	BC Hattiesburg High	5A
10	Biloxi High	3A
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12	Brookhaven High	4A
13	Canton Public High	2A
14	Coahoma AHS	3A
15	Charleston High	4A
16	Clarksdale High	5A
17	Clinton High	2A
18	Coahoma Co High	1A
19	Coffeeville High	3A
20	Collins High	5A
21	Columbus High	3A
22	Cornith High	3A
23	Coumbia High	3A
24	Crystal Springs High	1A
25	Drew High	1A
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27	Enterprise High	1A
28	Falkner High	4A
29	Forrest County AHS	2A
30	Forrest High	3A
31	Franklin High	4A
32	Gentry High	5A
33	George County High	3A
34	Greene County High	5A
35	Greenville Weston Hig	4A
36	Greenwood High	5A
37	Grenada High	5A
38	Gulfport High	5A
39	Hancock High	3A
40	Hazelhurst High	3A
41	Heidelberg High	2A
42	Hinds County AHS	3A
43	Holly Springs High	3A
44	Houston High	3A
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47	Itawamba High	3A
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50	Kosciusko Sr High	4A
51	Lafayette High	4A

52	Laurel High	2A
53	Leland High	4A
54	Long Beach Sr High	2A
55	Lumberton High	4A
56	Mccomb High	3A
57	Morton High	3A
58	MS Palmer High	2A
59	N Forrest High	5A
60	Natchez High	4A
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62	Newton Co High	2A
63	Newton high	3A
64	North panola High	3A
65	North Pik Sr High	4A
66	Noxube Co High	5A
67	Ocean Springs High	1A
68	Okolona High	4A
69	Oxford High	3A
70	Pass Christian High	4A
71	Pearl High	4A
72	Pearl R Central High	3A
73	Perry Central High	5A
74	Petal High	2A
75	Philadelphia High	4A
76	Pontotoc High	4A
77	Poplarville Jr Sr High	4A
78	Port Gibson High	4A
79	Quitman High	3A
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81	Ripley High	3A
88	Rosa Fort High	3A
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90	Shaw High	2A
91	Simmons High	2A
92	South Delta High	5A
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95	Starkville High	4A
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103	West Point High	2A
104	West Tallahatchie Hig	3A
105	Wilkinson Co High	3A
106	Winona Secondary	4A
107	Yazoo City High	4A
	Yazoo Co High	

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